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Newsletter of BJRI

No. 3

72nd Board of Management (BoM) Meeting in BJRI



The Meeting is Chaired by Dr. Md. Monjurul Alam, DG, BJRI

Bangladesh Jute Research Institute (BJRI) arranged 72nd Board of Management (BoM) meeting on 8th January, 2017 at the Board Room of BJRI. Dr. Md. Monjurul Alam, DG, BJRI chaired the meeting. Dr. S.M. Mahbub Ali, Director (Administration &

Finance) was present as the Secretary of BoM. All the honorable members from deferent Ministries, Organizations & BJRI were present on the occasion and approved the agendas in a congenial atmosphere. Md. Rafiqul Islam, Add. Secretary; Begum Selima Akhter Banu, Joint Secretary, Ministry of Agriculture (MoA); Dr. Md. Asaduzzaman, Director (Technology); Dr. Rahima Khatun, Director (Agril.); Dr. Md. Abul Kalam Azad, Director (Jute Textile); Dr. Md. Shahidullah, CSO; Dr. Chandan Kumar Saha, CSO, as senior scientist were present in the occasion. Promotion and Selection Grade of scientists and officers were approved by the Board of Management. The meeting was concluded through the worm welcome of the new BoM member Dr. C.K. Saha by Dr. Manjurul Alam, DG, BJRI..

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Hundred Days of Director General, BJRI



Dr. Md. Monjurul Alam, DG, BJRI honoured the then DG Dr. Md. Kamal Uddin at the parting time

Ministry of Agriculture, Government of the People's Republic of Bangladesh did a splendid job to recruit Dr. Md. Monjurul Alam in Bangladesh Jute Research Institute (BJRI) as Director General (DG). Today (20 March 2017) he passed 100 days activities at BJRI. As an Editor of BJRI Newsletter, I would like to express my observation and realization regarding his activities.



Scientists, Officers & other employees congratulate the newly appointed DG

He had an amazing joining ceremony and parting period with tears and happiness as Dr. Md. Kamal Uddin terminates his tenure at a congenial atmosphere. Scientists, Officers and Staffs of all levels came enthusiastically to congratulate Dr. Alam. They expressed their deep satisfaction and greeting for the

newly joined DG. They believed that BJRI will move forward smoothly under the dynamic leadership of Dr. Md. Monjurul Alam.

After joining as DG, Dr. Alam got a Grand Reception from all the wings with bunches of flowers in an individual meeting. Accepting the Grand Reception Dr. Alam uttered-"My first, second and last work is to do Research". Actually he is not only worked for Research but also lined up administrative discipline.

It is not to be exaggerated to say that Dr. Alam is the true friend of Research and people of BJRI. It is a great blessing that MoA selected the right person, right time to uphold BJRI.

Very first week he had a meeting with the scientists of Agriculture Research Wing. The Director (Agril.) Dr. Rahima Khatun and all the CSOs were present in the meeting. Dr. Alam asked all the six CSOs to make a list of problems and obstacles for conducting modern research for achieving targets and advised them to be attentive in research with full devotion.

Next week he had a meeting with the scientists of Technology Research Wing. In that meeting Dr. Md. Asaduzzaman, Director (Tech), CSOs and Scientists of all levels were present. He urged all the scientists to innovate new technology that will be helpful for jute industries and entrepreneurs. The DG also expressed

his cordial commitment for providing all sorts of assistances for conducting modern research. He also emphasized on discipline and punctual in all the events. In the month of February 2017, Dr. Alam made a visit with Director (A&F) Dr. S.M. Mahbub Ali to JTPDC wing and urged the Director Dr. Md. Abul Kalam Azad and scientists to prepare and submit an Annual Technical programme for 2018 and report for 2017 to orient the research activities in the right track.



Scientist, Officers & other employes congratulate the newly appointed DG

Then he made a plan to visit all the regional, central and sub-stations of BJRI all over Bangladesh. His first visit was at Faridpur, Regional Research Station. There he made an investigative visit to Talma, famous for quality jute production. He spent a day with senior scientists of BJRI and local jute farmers for taking research programme at Talma in farmer's field. Then he went to Gopalganj on the way to Jessore Sub-station. He made a visit to Tongipara to the graveyard of the Father of the Nation, prayed for his departed soul and laid a floral rith on the graveyard of Bangabondhu Sheikh Mujibur Rahman on 24 February, 2017.



Dr. Md. Monjurul Alam, DG with the Project Director, Director (A&F) visited development activities of HQ, Dhaka

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International Mother Language Day 2017 Observed at BJRI



Bangladesh Jute Research Institute (BJRI) observed International Mother Language Day and the Shaheed Dibosh 21st February, 2017 in a befitting manner. The day's programme started with the hoisting of National Flag at half-mast in BJRI premises by Dr. Md. Monjurul Alam, Director General, BJRI at 7:30 in the morning. Dr. S.M. Mahbub Ali, Director (Administration & Finance); Dr. Md. Asaduzzaman, Director (Technology); Dr. Rahima Khatun, Director (Agril.); Dr. Md. Abul Kalam Azad, Director (Jute Text.); Dr. Chandan Kumar Saha, CSO, Breeding Division, Md. Nazrul Islam, CSO. PTC and other employees were present on the Occasion. Guard of Honour was given by the Anser contingent deployed in BJRI. Special Prayers were offered for salvation of the souls of the valiant language martyrs on the spot. After the prayer, sweets were distributed among all present on the occasion. As Provat Feriea night be arranged next year to show respect the language martyrs. National Anthem was sung by the present people in a mind. It may be mentioned that special Dua was offered after Ashor prayer at BJRI Central Mosque for the Mother language martyrs.



Unexploited potentials of kenaf

Krishibid M. Al-Mamun, Senior Scientific Officer, Breeding Division
Bangladesh Jute Research Institute, Dhaka-1207, Bangladesh

Kenaf (*Hibiscus cannabinus* L) is an economically important global natural fibre crop classified in the genus *Hibiscus* (Malvaceae) and has a great potential for its multipurpose utilization. Kenaf has a good potential of becoming an excellent source of various products such as poultry litter and cattle feed. It can be processed into acoustic tile, animal bedding, soil-less potting mixes, composite board for construction, mats for erosion control and absorbents for cleaning up chemicals or oils spills. Different parts of kenaf and allied fibre crops in various forms may be used directly for the treatment of various human diseases and also used as herbal medicine to control or prevent dysentery, worm and constipation. Kenaf seed oil is consumed as cooking oil, salad oil, margarine, lubricant, as well as input in production of soap, linoleum, paints and varnishes. Besides, it has unsaturated fatty acid in low proportion, which is used in the elongation of margarine.

Kenaf bast fibres (from its bark) are being used in place of fiberglass in the making of molded car parts. It also functions as an industrial material for making bags, towels, jeans, fabric, computer parts, carpets, plane parts, geo-textile, non-oven neat and furniture which makes its potential value higher. The European automotive trim industry is now using kenaf fibres in door panels and other parts. Japan's carmakers too are "going green". In Indonesia, Toyota manufactures door trims made from kenaf and polypropylene and Mazda is using a bio-plastic made with kenaf for car interiors. In Europe, fibres are being used in cement and to make particleboards half the weight of wood-based boards. In some Japanese cities, kenaf was planted by government to improve the air quality. In terms of environmental impact, kenaf can absorb CO₂ and NO₂ 3-5 times faster than forest trees and its deep roots can improve the soil fertility. It can clean the environment efficiently. Kenaf also increases the soil fertility as leaf droppings and decaying roots add substantial amount of organic matter to the soil.

Origin and distribution

Kenaf is believed to be originated in Africa, more particularly in East Africa, where diversified forms of the kenaf species and its related species in the *Hibiscus* genus, including roselle (*Hibiscus sabdariffa* L.), are found growing widely. Kenaf was cultivated commercially as a fibre crop in Asia and the USSR since the 1930's, but is now cultivated in the United States, Latin American countries, Soviet Union, Sudan, Egypt, India, Bangladesh, Australia,

Philippines, Indonesia, Iran, Nigeria, Senegal, Thailand, China and Brazil. It has been introduced into Cuba, Guatemala, El-Salvador, Colombia, Mexico, Costa Rica and Haiti as a source of fibre and into Tanzania, Kenya and Australia for the production of paper.

Plant habit and ideotype

Kenaf is a short-day, annual, herbaceous plant cultivated for soft bast fibre. Stems erect, prickly, more or less cylindrical, branched or unbranched, reaching a height of about 2.5-3.5 m or 8-12 feet, either entirely green, green with pinkish or reddish pigmentation or red. Leaves entirely cordate and very shallowly lobed with serrated margin or 3-5-7 deeply palmately lobed or mixed. The stem of kenaf has a higher basal diameter and its wood is soft as compared to mesta. The stem could be flat and thorny and reach a height of 2-4 m, depending on the varieties and environmental conditions.



Growth character

In major kenaf growing areas, kenaf grows in a latitude range of 16°S to 41°N with a mean relative humidity range of 68-82% and the mean growing temperature during the season ranges from 22.6°C to 30.3°C. During the growing season the mean rainfall per month ranges from 100-329 mm and 500-625 mm over a period of 5 to 6 months is essential for the successful production of kenaf fibre. Kenaf is a short-day plant remaining vegetative until the day length falls below 12 hr or 12 hr and 45 min. Flowering of late maturity cultivars is under photoperiodic control; conversely photoperiod does not influence the flowering of early-maturity cultivars, which are less productive in terms of final biomass. Kenaf requires long day for flowering; when sown during short days, its growth remains longer in the vegetative stage, resulting in a longer period of flowering. The vegetative growth is shortened when sowing is late.

Environmental factors prevailing during cropping season may be responsible for the initiation of flowering. Long light period during April-July prolonged the vegetative stage and plants began to flower with the advent of short days in September, irrespective of sowing time.

Kenaf in Bangladesh

Jute and kenaf combined contributes 5-6% of the total foreign exchange earning in Bangladesh. They share around 4% to the GDP and directly or indirectly provides livelihoods to more than 30 million people including farmers, businessmen, workers, laborers and self employed artisans and weavers of the country. Around 40,000 hectares of land is now being under kenaf cultivation in Bangladesh and the fibre production is 80-90 thousand tons per annum with average yields of 2.0-2.5 tons/ha. In Bangladesh, more than 30% of the net cultivable area is the coastal belts. About 0.83 million hectares land is affected by varying degrees of soil salinity. Salinity causes unfavorable environmental and hydrological situation restricting the normal crop production throughout the year. The increased demand for food and other crops has pushed jute and kenaf into the marginal lands. Jute yield is very low both in marginal and coastal saline lands. In this situation, kenaf can be the right choice as it has higher salt tolerance capacity and can give higher yield than jute under stress environment.

Rice is the predominant crop in the jute and kenaf growing belt in Bangladesh. Under pressure from food crops and even from Jute crop, kenaf cultivation is increasing shifting to less productive lands with marginal care. Abiotic stresses like drought, flood, low temperature etc. are detrimental to this crop. As kenaf is more adaptive than jute under diverse conditions of climate and soil, therefore much attention should be given in kenaf cultivation instead of jute for the proper utilization of problem soils Bangladesh like saline and coastal region. Bangladesh Jute Research Institute developed different kenaf varieties, optimum time of sowing for fibre production which are given below-

Table 1. Year, sowing date and yield of different released kenaf varieties developed by BJRI

Variety	Year of release	Sowing date	Yield (ton/ha.)
HC-2 (Joli Kenaf)	1977	15 March - 30 April	2.50 - 2.70
HC-95	1995	15 March - 30 April	2.80 - 3.30
BJRI Kenaf-3 (Bot kenaf)	2010	15 March - 30 April	2.60 - 3.00
BJRI Kenaf-4 (Lal kenaf)	2017	15 March - 15 May	2.80 - 3.30

Source: BJRI and SCA

Limitation

The expansion of kenaf in Bangladesh has been limited by shortage of quality seed. Otherwise, the

supply of seeds from local and exotic sources is not sufficient. Generally, farmers produce kenaf seed by conventional method. The crop stays in the field for long time and thus it is affected by drought, hailstorm, flood, disease and insect pest infestation during its prolonged stage. Consequently the plants become physiologically weak and produce low yield of poor quality seeds and lose viability rapidly in storage. Quality seeds of an improved variety itself provide 20% additional yield of the crop. Every year a huge amount of tossa jute and kenaf seeds are introducing through official and unofficial trades from neighboring country. Unofficially introduced jute and kenaf seed have no guarantee of its quality and is one of the major causes of low yield. Seed production of kenaf in late season could be done by direct seeding on dry cultivated land or transplanting of seedling or planting of top cut like jute between July and September. The off season seed production following proper procedure can solve the problem with lack of quality seed.

Table 2. Jute and Kenaf Seed import of last 5 years (tons)

Year	Tossa Jute Seed	Kenaf Seed	Total
2011-12	4361	656	5017
2012-13	3980	550	4530
2013-14	3964	928	4891
2014-15	3598	640	4238
2015-16	5000	1053	6053

Source: DAE and MoA

Future prospect

Global awareness on 'save the environment' increases the demand of Jute and Allied Fibre (JAF). However, since their introduction, synthetic fibres, the alternatives of natural fibres, have been a major competitor in the international market. In recent years the situation has improved as people are now more concerned about the environment and since natural fibres do not pollute the nature as do synthetics. Kenaf is an environment friendly natural fibre like jute. It has all potential to be converted into a number of eco-friendly products that the whole world is looking for. The commercial success of kenaf has important potential economic and environmental benefits in the areas of soil remediation, toxic waste cleanup, removal of oil spills on water, reduced chemical and energy use for paper production, greater recycled paper quality, reduced soil erosion due to wind and water, replacement or reduced use of fibre glass in industrial products and the increased use of recycled plastics. Further, Kenaf has huge potential in reducing global green house effect by scavenging CO₂ from the environment. Thus, Kenaf is a crop having a lot of positive benefits in terms of economy, soil health and environment. Therefore, kenaf cultivation should be expanded for better utilization of the marginal lands and also to achieve more economic and environmental benefits.

BJRI celebrated the "INDEPENDENCE DAY 2017"

Bangladesh Jute Research Institute (BJRI) celebrated 47th Independence Day with renewed vigor to build a prosperous and peaceful Bangladesh. Dr. Md. Monjurul Alam, Director General, BJRI hosted the National Flag at 7:30 in the morning on the day of Independence. The Anser Contingent deployed in BJRI gave a guard of honour. Dr. S.M. Mahub Ali, Director (Administration & Finance); Dr. Md. Asaduzzaman, Director (Technology); Dr. Rahima Khatun, Director (Agril.); Dr. Md. Abul Kalam Azad, Director (JTPDC); Dr. Chandan Kumar Saha, CSO, Breeding Division, Md. Nazrul Islam, CSO, PTC and other employees were present on the occasion and prayed for the departed souls of martyrs and progress of BJRI as well as for the country. A special prayer also offered for the departure souls who sacrificed their lives during freedom fighting in 1971 at BJRI Jamme Mosque on the day.



News on Trainings

Administrative and financial Management



A Training on Administrative and Financial Management was held at PTC Division, Bangladesh Jute Research Institute on 29th to 31st January 2017. Dr. Md. Monjurul Alam presided over the Training Programme as Chief Guest. Md. Nazrul Islam, CSO, PTC and Project Director, "Dissemination and Development of Agricultural Technologies of Jute and allied fibre". Dr. A. T. M. Morshed Alam, PSO, PTC was the Course Director and Dr. S.M Kamruzzaman, SSO, PTC was the Course Co-ordinator.

Besides, Dr. Md. Asaduzzaman, Director (Technology), Dr. Mrs. Rahima Khatun, Director (Agriculture), Dr. Md. Abul Kalam Azad, Director (Jute-Textile), Dr. S, M, Mahub Ali, Director (A&F) and Deputy Project Directors, were present on the occasion.

Thirty Participants from different District and Upazila Agriculture extension offices were attended in the training programme.

ToT for Dissemination of Industrial Technologies on JUTE

A Training on ToT for Dissemination of Industrial Technologies on JUTE was held at PTC Division, Bangladesh Jute Research Institute on 26th to 28th February 2017. Dr. Md. Monjurul Alam, DG, BJRI presided over the Training Programme as the Chief Guest. Md. Nazrul Islam, CSO, PTC and Project Director, "Dissemination and Development of Agricultural Technologies of Jute and allied fibre". Dr. A. T. M. Morshed Alam, PSO, PTC was the Course Director and Dr. S.M Kamruzzaman, SSO, PTC was the Course Co-ordinator.

Besides, Dr. Md. Asaduzzaman, Director (Technology), Dr. Mrs. Rahima Khatun, Director (Agriculture), Dr. Md. Abul Kalam Azad, Director (Jute-Textile), Dr. S, M, Mahub Ali, Director (A&F) and Deputy Project Director were present on the occasion.

Thirty Participants from different Districts, Institutes and Upazila Agriculture Extension Offices were attended in the training programme.

ToT for Dissemination of Industrial Technologies on Jute



A Training on TOT for Dissemination of Industrial Technologies on JUTE was held at PTC Division, Bangladesh Jute Research Institute on 05th to 07th March 2017. Another training on ToT was held at PTC Division, Bangladesh Jute Research Institute on 27th to 29th March 2017.

Dr. Md. Monjurul Alam, DG, BJRI presided over the Training Programme as the Chief Guest. Md. Nazrul Islam, CSO, PTC and Project Director, "Dissemination and Development of Agricultural Technologies of Jute and allied fibre". Dr. A. T. M.

Morshed Alam, PSO, PTC was the Course Director and Md. Shafiqul Hasan, SSO, PTC was the Course Coordinator.

Besides, Dr. Md. Asaduzzaman, Director (Technology), Dr. Mrs. Rahima Khatun, Director (Agriculture), Dr. Md. Abul Kalam Azad, Director (Jute-Textile), Dr. S. M. Mahubub Ali, Director (A&F) and Deputy Project Director were present on the occasion.

Thirty participants from different District and Upazilla were attended in the each of the training programme.

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Hundred Days of Director General, BJRI

The Director General visited Jute Research Sub-station, Monirampur, Jessore. He left Monirampur 25th February 2017 and observed the total activities of Research and Development and expressed his opinion to local jute cultivators and exchanged his views.

On 4 March, 2017 Dr. Md. Monjurul Alam visited Jute Research Regional Station, Chandina, Comilla and Boyerchar, Hatia, Noakhali for selecting land to establish a research farm in saline area.

It may be mentioned that since his joining Dr. Alam has been busy with research and BJRI affairs. He joined National and official programme like International Mother Language Day and Shahid

Dibosh, Training programme of PTC Division and so on activates which are not cited here.

It is to say for him well done Dr. Alam, go ahead and conquer BJRI and Jute Sector.



Jute Market Report (TK.):

Raw Jute	January 2017		February 2017		March 2017	
	Per 100 kg	Per 40 kg	Per 100 kg	Per 40 kg	Per 100 kg	Per 40 kg
White Top	6625	2650	6625	2650	6625	2650
Tossa Top	6875	2750	6875	2750	6875	2750
Mesta Top	6625	2650	6625	2650	6625	2650
White Mid	5375	2150	5375	2150	5375	2150
Tossa Mid	5500	2200	5500	2200	5500	2200
Mesta Mid	5375	2150	5375	2150	5375	2150
White B. Bottom	5125	2050	5125	2050	5125	2050
Tossa B. Bottom	5250	2100	5250	2100	5250	2100
Mesta B. Bottom	5125	2050	5125	2050	5125	2050
White C. Bottom	4500	1800	4500	1800	4500	1800
Tossa C. Bottom	4625	1850	4625	1850	4625	1850
Mesta C. Bottom	4500	1800	4500	1800	4500	1800
White X. Bottom	4150	1650	4125	1650	4125	1650
Tossa X. Bottom	4250	1700	4250	1700	4250	1700
Mesta X. Bottom	4125	1650	4125	1650	4125	1650

Source: BJA (Bangladesh Jute Association, Narayangonj), Per 100 kg = 1 Quintal, Per Md. = 37.324 kg

Subscription rate per year


Bangladesh	Tk.	100.00
Asia	\$	15.00
Europe	\$	18.00
Africa	\$	18.00
America	\$	20.00
Australia	\$	20.00

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