



Newsletter

Q4 (Oct – Dec, 2021)



Shri H. R. C. Prabhu

From the desk of Sr. Scientist & Head I/c,

ICAR-Central Coastal Agricultural Research Institute, Old Goa, Goa, has released Goa Bio- 2, a Bio-formulation for plant health management of field, vegetable crops and black pepper in coastal regions

Product details:	Organism : Bacillus methylotrophicus RCh6-2b Formulation : talc based Population : >108 CFU/g Shelf life : 18 months
Recommended crops:	Vegetable crops (brinjal, tomato, chilli, cucumber), black pepper, fruit and plantation crop nurseries.
Benefits:	<ul style="list-style-type: none">• Improved plant growth parameters, plant health and yield• Reduced soil borne diseases incidence in brinjal, chilli and black pepper• Important component of IPM and INM strategy• Eco-friendly hence fits in organic farming concept
Delivery methods:	Efficient and easy delivery methods viz: nursery application and soil application during and after planting were validated in various crops.
Recommendation dose:	Nursery application: 50g/m ² as soil application or mix with water and apply if plants are established. Main field Soil application: Apply 1.25 – 150 g/plant in case of vegetables (drench the suspension made of water). Apply 50 g per plant in case of black pepper and other plantation crops as powder while planting or drench the suspension made of water if the planting has already been done. For mango grafts, apply 5 g/bag as powder before raising root stock and apply 2.5 g/plant after one month by drenching the suspension. Application to be repeated every year in case of black pepper and other plantation crops.

Special camp under Swayampurna Goa

A special camp under Swayampurna Goa, an initiative of Government of Goa was organized by Village Panchayat, Ambaulim, Quepem, on 08/10/2021. The programme was organized in collaboration with ICAR – Central Coastal Agriculture Research Institute and Krishi Vigyan Kendra- North Goa. Shri Clafasio Dias, Hon'ble MLA, Cuncolim, graced the occasion as Chief Guest and in his address he advised the farmers to pay more attention on increasing productivity of crops and diversification to achieve self-sufficiency. He also urged the farmers to take advantage of programmes and to adopt all latest ICAR technologies to realize higher net returns. He also advised to take benefit of Kisan Credit Card and other government schemes.



Shri H. R. C. Prabhu, Sr. Scientist & Head I/C, KVK-North Goa, explained all the technologies of ICAR – CCARI and various activities of KVK, North Goa, for the benefit of farmers. He also explained the farmers about vermicomposting and how we can get wealth from waste. Dr. Monica Singh, SMS (Ag. Ext.), KVK, North Goa, discussed in detail on Integrated Farming & Entrepreneurship Development in Agriculture and allied sectors for doubling farmers' income. Mr. Shashi Vishwakarma, Tech. Officer (Soil Science), KVK, North Goa, thoroughly explained the importance of soil testing and process of

collecting soil sample. Shri Sandesh Desai, ZAO, Quepem, presented various department schemes during the program. A display of exhibits was also arranged for the benefit of farmers. The program ended with vote of thanks by Mrs. Jecinta Dias, Sarpanch, Ambaulim.

'Government at your door'

ICAR - KVK, North Goa, participated in 'Government at your door' programme, at Government college, Sanquelim on 10/10/2021.



Dr. Pramod Sawant, Hon'ble Chief Minister, Government of Goa, appreciated efforts of the institute in generating technologies for Goan farmers. ICAR-CCARI technologies were showcased and required information was explained by Mr. Shashi Viswakarma, Technical Officer (Soi Science) for the benefit of farmers. ICAR-CCARI, KVK North Goa stall was visited by more than 500 farmers.

Special National Swachhta Campaign

A Special National Swachhta Campaign was organized by ICAR-KVK, North Goa, on 12th October, 2021 at R. C. Pai Raikar School of Agriculture, Savoi-verem to sensitize diploma students and farmers regarding decomposition of agriculture waste and vermicomposting. The theme of the campaign was "Waste to Wealth".



Dr. Parveen Kumar, Director, ICAR – CCARI, Goa, Chief Guest of the program, in his address highlighted the importance of cleanliness in day-to-day life and how a small step can lead to make society ultimately the country clean. He also informed about the AGNI-Agri Business Incubator project of ICAR-CCARI to provide support to startups for initial six months to start their business. Mrs. Rupa Naik, Deputy Sarpanch, Savoi-verem opined that it is difficult to conceptualize waste, as every waste if reused properly will turn into wealth. Shri Pradeep Lotlikar, Executive Member of Education Society, highlighted the role of youngsters in spreading awareness about swachhta. Shri Shirang Jambhale, Principal, R. C. Pai Raikar School of Agriculture, in his address thanked ICAR – CCARI, Goa, for their support in agricultural technologies and explained various activities of the school. Shri HRC Prabhu, Head, KVK, North Goa, emphasized the importance of conducting the program and gave a brief introduction of Special National Swachhta Campaign. Shri Shashi Vishwakarma, Tech. Officer (Soil Science), KVK, North Goa delivered lecture on vermicomposting during technical session. The videos and presentations provided by council was shown to the participants. Extension material provided for this campaign was also distributed to the participants. In addition to this ICAR – CCARI, Goa, distributed vermicomposting bag and dustbin to school. Mrs. Sunetra Talaulikar, SMS (Home Science), KVK, North Goa proposed vote of thanks. Mr. Rahul Kulkarni ACTO, KVK, North Goa and Mr. Vishwajeet Prajapati, KVK, North

Goa helped in recording and documentation of program. The program was moderated by Dr. Monica Singh, SMS (Agril Extension), KVK, North Goa. The programme was attended by 80 participants.

Mahila Kisan Diwas

ICAR - Central Coastal Agriculture Research Institute (ICAR-CCARI) Goa and ICAR - Krishi Vigyan Kendra, North Goa celebrated 'Mahila Kisan Diwas' at Parra village of Bardez taluka of State of Goa on 15/10/2021 under Bharat Ka Amrit Mahotsav to celebrate the 75th year of independence. Chief Guest of the programme, Mrs. Delilah Lobo, Sarpanch of the village Panchayat emphasized the importance of the women farmers in the agriculture and allied sector and strongly highlighted their involvement in food production system from 'Farm to Fork'.



On the occasion, demonstrations of various technologies at the village level by ICAR-CCARI and KVK were acknowledged. Shri H.R.C. Prabhu, Head, ICAR – KVK, North Goa, explained and demonstrated plant propagation techniques on layering, grafting, budding in mango, cashew and rose and other ornamental plants for skill-building and generating additional income. The demonstrations were assisted by Shri Chimnu Tivrekar, SSS, KVK. Processing and value addition to locally available fruits like jackfruit, kokum and coconut for employment generation and increasing income was deliberated by Mrs. Sunetra Talaulikar, SMS (Home Science), KVK. She further quoted examples of successful women farmers of ICAR-CCARI and KVK, Smt. Kalindi and Smt. Darshana Pednekar, who

adopted the technologies through training, awareness programmes, etc. to make their farming profitable and improve livelihood. Seeds kits of the improved varieties of the vegetables (red amaranthus, okra, cowpea, spinach, brinjal, radish, etc.) and vermicomposting bags were given to the farmers along with technical details on the scientific cultivation of vegetables and know-how of the vermicomposting. Dr. Monica Suresh Singh, SMS (Agril. Extn.) briefed about the theme 'Equity and Empowerment' in celebrating 'Mahila Kisan Diwas'. Around 60 farm women and farmers attended the programme. Shri Vishwajeet Prajapati, Technical Officer (Computer), documented the programme.

World Food Day

ICAR - Central Coastal Agricultural Institute (ICAR-CCARI), Goa and Krishi Vigyan Kendra, North Goa, celebrated World Food Day on 16th October, 2021 at Diwar Island of Tiswadi taluka of State of Goa under the Azadi Ka Amrit Mahostav in commemoration of 75th year of independence. Dr. Parveen Kumar, Director, ICAR – CCARI, Chief Guest, said that this year World Food Day is being celebrated as a tribute to 'food heroes' and create awareness to mitigate hunger & malnutrition, maintain sustainability and increase food production. He gave an insight on wastage of food at different levels and emphasized that 17% of food is wasted at consumer level. This can be saved to feed the under-nourished population of the world. Shri Mario Pinto, Sarpanch, Goltem-Navelim, stressed to maintain the agricultural productivity of the Diwar Island. He informed that the Island was once a major paddy grower but due to ingress of saline water and mangroves, area under cultivation has decreased drastically and requested the technological backstopping from the ICAR-CCARI and KVK, North Goa to bring back some area again under paddy cultivation in kharif and under vegetables during rabi season. He thanked the Institute for demonstrating the

various technologies and support extended time to time to the farmers of the Island.



Shri H. R. C. Prabhu, Head, KVK briefly introduced the significance of celebrating World Food Day and apprised about its history. During the technical session, Smt. Sunetra Talaulikar, SMS (Home Science) talked on 'Better nutrition and better life' and Shri Rahul Kulkarni, ACTO about 'Better production and a better environment'. On the occasion coins released since 1970 by Government of India to Commemorate World Food Day were also displayed. To promote healthy and nutritious food items, a cooking competition using millets, pulses and vegetables was also arranged, where 24 farm women participated and prizes were awarded. Smt. Alba Silvera, Computer Trainer, Goltem-Navelim gave the welcome address and Smt. Rina D'Souza, a Progressive Farmer proposed vote of thanks. The program was coordinated by Dr. Monica Singh, SMS (Agril Extension) and documented by Shri Vishwajeet Prajapati, Technical Officer (Computer). The programme was attended by 52 farmers and farm women.

State Level Review cum Sensitization Workshop on Cluster Frontline Demonstration(CFLD) on Pulses and Oilseeds

ICAR-CCARI and ICAR-KVK, North Goa organized a State Level Review cum Sensitization Workshop on Cluster Frontline Demonstration(CFLD) on Pulses and Oilseeds on 18th-19th November, 2021 in collaboration

with ICAR-ATARI-Pune and ACAR, Old Goa. Around 47 Krishi Vigyan Kendras (KVK) from Maharashtra participated in the workshop.

The workshop started with welcome address by Shri HRC Prabhu, Senior Scientist and Head (I/c), ICAR-KVK North Goa in which he welcomed all the dignitaries and delegates of the work shop. Dr. Lakhan Singh, Director, ICAR-ATARI, Pune gave a brief overview regarding CFLD on Oilseeds and Pulses and its achievement in Maharashtra.



Dr. Parveen Kumar, Director, ICAR-CCARI, Goa and Guest of Honor of the programme applauded the work of KVK's regarding their contribution in Oilseed and Pulses through CFLD. He also emphasized that CFLD can be used as tool to achieve self sufficiency in Oilseeds and seed production. He also gave an overview regarding the working of ICAR – CCARI, Goa. Dr. V. P. Chahal, ADG (Agril. Extn.), ICAR, New Delhi was the Chief Guest of the programme. During his address he stressed on impact analysis of CFLD programme after every three years. He also spoke on need for documentation of important success stories of CFLD farmers. He also said that KVK's should provide feedback regarding constraints in adaptability of any variety or technology packages in farmers field if any. He further urged the KVK's to act as a seed hub for Oilseed and Pulses as the biggest constraint faced by farmers is availability of quality seeds of proper time.

The workshop was also attended by Dr. D. B. Devsarkar, DEE, VNMKV, Parbhani, Dr. S. G. Bhawe, DEE, BSKKV, Dapoli and and Dr. S. R. Gadakh, DEE, MOKV, Rahuri. All the Director of Extension Education (DEE)

presented the work done regarding CFLD on Oilseed and Pulses in their respective SAU's



The technical session saw presentation on “Latest transferrable technologies of Pulses” by Dr. R. S. Bhadane, Officer Incharge, Pulse and Oilseed, Crop Research and Training Centre, MPKV, Pandharpur and “Latest transferrable technologies of Oilseeds” by Dr. M. P. Deshmukh, Officer Incharge and Soyabean breeder agricultural research station, MPKV, Rahuri. Also, all the KVK presented work done report regarding CFLD for last five years. Six extension literature regarding pulses and oilseeds were also released during the workshop. The delegates also had a guided field visit of KVK – North Goa instructional farm, Agro Tourism Center of ICAR – CCARI and ICAR – CCARI units. The programme was coordinated by Dr. Monica Suresh Singh, SMS (Agril. Extn.), ICAR – KVK, North Goa.

Training program on Integrated Crop Management in Horticultural Crops

A training program on Integrated Crop Management in Horticultural Crops and exposure visit from 30th Nov to 1st Dec, 2021, for a farmers group from Kanyakumari District, Tamil Nadu. The crops covered were coconut, arecanut, mango cashew, medicinal and aromatics. Dr. Arunachalam, Mr. H R C Prabhu, Dr. Maruthadurai and Dr. Maneesha were the resource persons during the program.



Mr. Rahul Kulkarni coordinated the exposure visit to different demonstration units at KVK and ICAR – CCARI. The program was attended by 27 farmers and three staff members from Horticulture Department, Govt. of Tamil Nadu.

Training on “Organic Farming”

ICAR – Krishi Vigyan Kendra (KVK), North Goa, ICAR – Central Coastal Agricultural Research Institute (CCARI), Goa conducted one day training programme on “Organic Farming” for Paramparagat Krishi Vikas Yojana (PKVY) in collaboration with AFC India limited, Phaladaayi Foundation and Swastik Sendriya Krishi Seva Kendra, Sawantwadi. The programme started with a brief introduction on organic farming and its need for Goa by Dr. Monica Suresh Singh, Subject Matter Specialist (Agril. Extn.), ICAR – KVK, North Goa. She also explained in brief about activities of ICAR – KVK, North Goa. Shri Sachin Palkar, SAP Agro Services, Mumbai delivered a comprehensive lecture on organic farming process, certification process, requirement for certification. Further he explained packaging and branding of the products and digital marketing. Dr. Pravin Bered Patil of Walkem Biotech, Mumbai delivered lecture on organic farming. The Deputy sarpanch of Saligao urged the farmer to go organic to achieved nutritional security and sustainability in agriculture.



The programme was coordinated by Shri HRC Prabhu, Sr. Scientist and Head Incharge, ICAR – KVK, North Goa. The programme was documented by Shri Vishwajeet Prajapati, Technical Officer (Computer), ICAR – KVK, North Goa.

World Soil Day

ICAR – Central Coastal Agricultural Research Institute (CCARI), Old Goa and ICAR – Krishi Vigyan Kendra (KVK), North Goa celebrated ‘World Soil Day’ on 5 December, 2021. The theme of World Soil Day for the year 2021 is ‘Halt Soil Salinization, boost soil productivity’. Shri Shripad Yesso Naik, Hon’ble Minister of State, Ministry of Tourism and Port, Shipping and Waterways, Government of India graced the occasion as chief guest. On the occasion, he highlighted the importance of the soil and referred it as our mother and explained how soil health and human health are intricately related. He complimented the work of the ICAR-CCARI and ICAR-KVK towards improving the agricultural productivity and income of the farmers of Goa and coastal region. He urged for a blending of the traditional knowledge of the farmers and newer technologies achieve a dream of ‘Self-reliant Goa’. Emphasizing on the theme of the current of WSD and the coastal saline soils (locally called Khazan), he suggested use technological interventions and suitable policies for its sustainable utilization. Further he stressed on judicious use of the fertilizers based on soil testing and promotion of organic farming in the State.



Dr. Parveen Kumar, Director, ICAR – CCARI, Goa in his address explained the background of celebration of the World Soil Day. He briefed about the soil health and its status in the State. Highlighting the extent and degree of the land degradation, he emphasized on need for suitable technologies. He spoke about the Institute and its achievement and how it contributed significantly to the agricultural development in the Goa and other part of the coastal region. On the occasion, he appealed for bringing the agroecotourism to the main stream tourism so as to attract and retain youth in agriculture.

Shri. HRC Prabhu, Sr. Scientist and Head In-charge, ICAR – KVK, North Goa welcomed the dignitaries and participants and explained in brief regarding importance of ‘World Soil Day’ and the theme of the year 2021.

Technical session included lectures on ‘Balanced use of fertilizer’ by Dr. Gopal Ramdas Mahajan, Scientist (Soil Science), ICAR – CCARI, ‘Soil sampling and analysis’ by Shri Shashi Vishwakarma, Technical Officer (Soil Science), ICAR – KVK, North Goa and ‘Yogic Kheti’ by BK Darshana Didiji, Brahma Kumaris, Goa. During the programme, 100 soil health cards were distributed to the farmer. The programme was attended by farmers, students, scientists, subject matter specialists and staff of Institute and KVK.

The programme was compered by Dr. Monica Suresh Singh, SMS (Agril. Extn.), ICAR – KVK, North Goa and vote of thanks was given by Shri Rahul Kulkarni, ACTO (Soil Science), ICAR – CCARI, Goa. It was documented by Shri

Vishwajeet Prajapati, Technical Officer (Computer), ICAR – KVK, North Goa. The programme was organized and coordinated by Shri HRC Prabhu, Dr. Gopal Ramdas Mahajan, Dr. Monica Suresh Singh, Shri Shashi Vishwakarma, Shri Rahul Kulkarni and Shri Vishwajeet Prajapati.

Natural Farming

ICAR - Krishi Vigyan Kendra, North Goa, ICAR – Central Coastal Agricultural Research Institute organized the webcast programme of Shri Narendra Modiji, Hon’ble Prime Minster, Govt. of India, on ‘Natural Farming’ on 16th December, 2021, at A. J. de Almeida High School.



Dr. Parveen Kumar, Director, ICAR – CCARI, highlighted the importance of natural farming in coastal regions and asked the scientists to initiate the experiments related to natural farming to generate scientific data. Mrs. Culaso, Head Mistress, in her address appreciated the efforts of KVK and CCARI in creating awareness on natural farming. Farmers-Scientist interaction on natural farming was also organized in which farmers participated actively and showed their interest to delegate some area under natural farming. To promote vegetable farming in Goa, seed kit of five major vegetables were also distributed to the farmers after Prime Minister’s address. The programme started with welcome address by Shri. H. R. C. Prabhu, Sr Scientist & Head I/C, KVK, North Goa in which he spoke about the history and advantages of Natural Farming. He also spoke on the method of vermicomposting and its use to the students of the school before Prime Minister’s address.

A total of 155 participants watched the live program physically which included 43 farmers 69 students and 43 staff members. The webcast was also watched by 870 farmers virtually.

The program was coordinated by Shri H R C Prabhu, Sr Scientist & Head I/C, KVK, North Goa, Dr. Monica Singh, SMS (Agril Extension), Shri Rahul Kulkarni, ACTO (Soil Science) and Shri Vishwajeet Prajapati, Tech. Officer (Computer), ICAR – KVK, North Goa.

Two Days Training on Medicinal plants and Herbal products

A training programme was organized under Azadi Ka Amruth Mahotsav by ICAR-CCARI and ICAR-KVK, North Goa, on Medicinal plants and herbal products, on 17-18, December, 2021, in collaboration with Regional cum Facilitation Centre – Western Region, National Medicinal Plants Board, Ministry of AYUSH, GOI and Department of Botany, Savitribai Phule Pune University, Pune.



Dr. Parveen Kumar, Director, ICAR – CCARI, Goa, was the Chief Guest and in his inaugural remarks stressed on value added products from medicinal plants as an enterprise for farm women. Dr. Digambar Mokate, Professor, Dept. of Botany, Savitribai Phule Pune University, Pune, spoke on the importance of cultivation of medicinal plants. Dr. Shinde, Professor, Dept. of Botany, gave lecture cum demonstration on different value added products like herbal shampoo, soap, hand wash, etc. Mr.

H. R. C. Prabhu, Sr. Scientist and Head I/C, ICAR – KVK, North Goa, in his welcome address briefed about the KVK activities. Mrs. Sunetra Talaulikar, Subject Matter Specialist (Home Science) proposed vote of thanks and the programme was compered by Dr. Monica Suresh Singh, Subject Matter Specialist (Agril. Extension). The programme was attended by 75 participants from different villages of Goa.

Kisan Diwas

ICAR – Central Coastal Agricultural Research Institute, Ela, Old Goa and ICAR – Krishi Vigyan Kendra, North Goa celebrated ‘Kisan Diwas’ on 23rd December 2021 on the birthday of the 5th Prime Minister of India, Shri Choudhary Charan Singh, a farmer's leader, who introduced many policies to improve the lives of the Indian farmers. Dr. Parveen Kumar, Director, ICAR – CCARI applauded the farmers for their role in achieving food security and the untiring effort to produce surplus food production amid the pandemic situation of COVID-19. He further stressed on improving the cropping intensity and promotion of organic farming. On the occasion, he congratulated the farmers who received the appreciation from the Institute. Shri Uttam Murgaonkar, Sarpanch, Carambolim Panchayat, highlighted the problems faced by Karmali farmers especially in coastal saline soils, locally called khazan lands, and urged scientists for developing climate-resilient technologies for the benefit of the farmers. He heartily thanked the Institute and KVK for the support extended to the farmers. Dr. R L Meena, Principal Scientist, ICAR – CSSRI, Karnal enlightened the farmers about problems and constraints of the salt-affected soil and the technologies developed by ICAR-CSSRI, Karnal, a premier Institute working on soil salinity research, for utilizing these problem soils.



Shri H.R.C.Prabhu, Senior Scientist & Head I/C, KVK-North Goa, welcomed the guests and participants and informed them about the importance of celebrating 'Kisan Diwas'. The progressive farmers benefited from the Institute and KVK support and were awarded by the Goa State Level Awards - Krushi Vibhushan Awardee Smt. Anita Mattew Vallikkappem, Assonoda and Shri Deelip Narulkar, Pernem, who received Fr. Inacio Almeida Annual Awardee for Organic farming were felicitated for their untiring efforts and innovativeness to make farming a sustainable and profitable venture. Progressive farmers, Shri Suhas Hari Phadte, Smt. Hema Bugde, Smt. Vishranti Surlakar and Shri Sadanand Gaude were felicitated for their cooperation to transfer of ICAR-CCARI technologies and transfer of technology programmes of KVK. The farmers have been a source of motivation and inspiration for the fellow farmers. Shri Deelip Narulkar appealed the fellow farmers to be innovative and build entrepreneurship in agriculture in general and organic farming in particular.

Smt. Sunetra Talaulikar, SMS (Home Science), KVK proposed a vote of thanks. Dr. Monica Singh, SMS (Agril Extension) and Shri. Shashi Vishwakarma, Tech Officer coordinated the program. The programme was attended by 95 farmers, farm women, scientists and staff of the Institute and KVK.