The Cocommunity

Monthly Newsletter of the International Coconut Community

Vol. LIII No. 4 ISSN 0215 - 1502 April 2023

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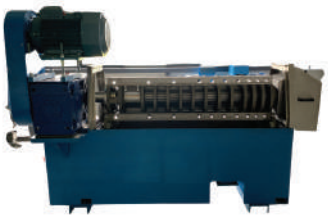

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THE EXECUTIVE DIRECTOR SPEAKS

" Optimizing the Coconut Husk Potential"

Coconut-producing countries produced more than 65.7 billion of coconut or 11.7 million MT copra equivalent in 2022, and about the same number are produced each year, or equivalent to 26.3 million MT of husk. However, over 92% of husk is left unused economically and sometimes disposed of as waste material. So far only two major coconut-producing countries, India and Sri Lanka are reported as the two major producers and exporters of husk or coir-based products to China, USA, Netherlands, Republic of Korea, and many more countries in Europe and Australia.

The export volume of coir in 2012 amounted to 1,857,466 MT with the export value of only about 6% of the total export value of all coconut-based products. This value is still far from its economic potential. About 60% peat and 40% fiber can be obtained and various eco-friendly products are processed and traded. The quantity and value optimization of the coir products exported and consumed domestically might potentially soar the important source of foreign exchange for the countries and boost the income of farmers and producers.

The use of coconut coir as a bio-composites is increasingly growing to meet the growing demand for sustainable, biodegradable, renewable and recyclable materials. The cumulative interest in automotive, cosmetic, robust structural board or materials has strengthened the need for natural fibers as it offers economic and environmental benefits. Coconut coir substrate to grow crops like sweet peppers are encouraged by scientists based on the scientific experiments showing that the better yield and nutritional quality were found in fruits grown under coir substrate when compared to loamy soil (control).

Coconut husk is useful as a water absorbent and toxin remover. Numerous studies have proven the use of coconut coir to remove water pollutants such as chromium. Chromium pollution has been known as a significant environmental threat. Overexposure to human and animal tissues can be toxic and detrimental to health. Coconut coir has been also used as a natural dye to meet the increasing demand worldwide for the natural dyes in all fields due to the carcinogenic effects of the waste from synthetic industries. The economic and eco-friendly application of coconut coir as a natural dye for the colorization of silk becoming popular.

Another application of coconut coir fiber is a concrete additive for rural road pavement and a mulching material to overcoming issue on improper farming and overexploitation of land to support a growing population that could lead to soil erosion. Soil erosion by water and wind causes more than 80% of all damage to the world's land resources. Mulching is one of the most effective agronomic measures for soil conservation as it protects the soil at the ground surface by forming a cover against rain splashing and runoff. Coconut fiber matting has been used by engineers for slopes and embankment stabilization for years. Coconut fiber is a biodegradable product and will fit into natural environmental cycle without pollution when compared to products such as plastics, polythene, or synthetic nets.

The coir industry is an agro-based rural industry providing employment to millions of workers including women. Hence, collective initiative and strong commitments to optimally utilize and convert the low-value products to higher value-added products is essential to maximize its potential in boosting the socio-economic livelihood of farmers and producers and in supporting the achievement of sustainable development goals.

DR. JELFINA C. ALOUW
Executive Director

PREVAILING MARKET PRICES OF SELECTED COCONUT PRODUCTS AND OILS

Price of Coconut Oil (CNO) increased in Philippines, Indonesia, and Sri Lanka. Price of Desiccated Coconut (DC) remained the same in Philippines and Indonesia but increased in India and Sri Lanka.

COPRA: In March 2023, the price of copra in Indonesia increased to US$606/MT, exceeding the previous month's price. However, compared to the same period in the previous year, the price dropped significantly by US$455/MT. On the other hand, in the Philippines' domestic market, the price of copra decreased from US$630/MT in February 2023 to US$627/MT in March 2023, a decrease of US$3/MT. The current price is US$594/MT lower than the price in March 2022, which was US$1,221/MT.

COCONUT OIL: In March 2023, the average price of coconut oil in Europe (C.I.F. Rotterdam) slightly increased to US$1,111/MT. Despite this increase, the current price is still 51% lower than the price a year ago, which was US$2,269/MT. In the Philippines, the average local price of coconut oil in March 2023 was US$1,113/MT, slightly lower than the previous month's price. However, the current price is much lower than the price in March 2022, which was US$1,112/MT. In Indonesia, the average local price of coconut oil decreased to US$1,121/MT in March 2023 from US$1,119/MT in February 2023. However, compared to February 2022, the current price is US$762/MT lower.

COPRA MEAL: In the Philippines, the average domestic price of copra meal was quoted at US$300/MT in March 2023, which was slightly higher than the previous month's price. Additionally, the current price was US$64/MT higher than the price a year earlier. In Indonesia, the average domestic price of copra meal remained the same at US$293/MT in March 2023, but was US$27/MT lower than the price of the previous year.

DESICCATED COCONUT: The average price of desiccated coconut (DC) FOB USA in March 2023 was US$1,874/MT, which was consistent with the previous month's price. However, the price was US$830/MT lower than the price of the same month last year. In Sri Lanka, the domestic price of desiccated coconut in March 2023 was US$1,727/MT, which was higher than the price in February 2023. In the Philippines, the price of DC in the domestic market remained unchanged at US$2,039/MT in March 2023. Meanwhile, the Indonesian price (FOB) of DC also remained the same as the previous month's price at US$1,400/MT, but was lower compared to last year's price of US$1,975/MT.

COCONUT SHELL CHARCOAL: In the Philippines, the average price of coconut shell charcoal in February 2023 was US$357/MT, which was lower than the price in the previous month. Meanwhile, Indonesia's charcoal price remained unchanged at US$463/MT in March 2023. In Sri Lanka, the price of coconut shell charcoal in March 2023 increased to US$399/MT, which was higher than the price in the previous month.

COIR FIBRE: In Sri Lanka, coir fiber was traded in the domestic market at an average price of US$45/MT for mix fiber and US$446-US$507/MT for bristle. In Indonesia, the price for mixed raw fiber was US$90/MT in March 2023, which was significantly lower compared to the price a year earlier at US$250/MT.

Price of Coconut Products and Selected Oils (US$/MT)

Products/Country	2023 Mar	2023 Feb	2022 Mar	2023 (Annual Ave.)
Dehusked Coconut				
Philippines (Domestic)	136	135	235	135
Indonesia (Domestic, Industry Use)	160	152	214	152
Sri Lanka (Domestic, Industry Use)	255	217	246	232
India (Domestic Kerala)	423	420	491	426
Copra				
Philippines (Dom. Manila)	627	630	1,221	626
Indonesia (Dom. Java)	606	588	1,061	595
Sri Lanka (Dom. Colombo)	1,355	1,168	1,556	1,217
India (Dom. Kochi)	1,043	1,043	1,278	1,053
Coconut Oil				
Philippines/Indonesia (CIF Rott.)	1,111	1,107	2,269	1,096
Philippines (Domestic)	1,113	1,123	2,225	1,125
Indonesia (Domestic)	1,121	1,119	1,883	1,125
Sri Lanka (Domestic)	2,305	2,017	3,005	2,111
India (Domestic, Kerala)	1,715	1,728	2,097	1,735
Desiccated Coconut				
Philippines FOB (US), Seller	1,874	1,874	2,704	1,874
Philippines (Domestic)	2,039	2,039	2,039	2,039
Sri Lanka (Domestic)	1,727	1,554	2,049	1,636
Indonesia (FOB)	1,400	1,400	1,975	1,400
India (Domestic)	1,428	1,416	1,826	1,433
Copra Meal Exp. Pel.				
Philippines (Domestic)	300	299	236	300
Sri Lanka (Domestic)	311	289	233	296
Indonesia (Domestic)	293	293	320	293
Coconut Shell Charcoal				
Philippines (Domestic), Buyer	357	373	406	365
Sri Lanka (Domestic)	399	354	438	360
Indonesia (Domestic Java), Buyer	463	463	593	462
India (Domestic)	359	375	531	389
Coir Fibre				
Sri Lanka (Mattress/Short Fibre)	45	36	106	41
Sri Lanka (Bristle 1 tie)	446	414	468	411
Sri Lanka (Bristle 2 tie)	507	483	608	482
Indonesia (Mixed Raw Fibre)	90	90	250	90
Other Oil				
Palm Kernel Oil Mal/Indo (CIF Rott.)	1,052	1,037	2,441	1,049
Palm Oil Crude, Mal/Indo (CIF Rott.)	972	950	1,777	955
Soybean Oil (Europe FOB Ex Mill)	1,113	1,243	1,957	1,236

Exchange Rate

Mar 31, '23 1 US$ = P54.29 or Rp14,955 or India Rs82.11 or SL Rs329.00

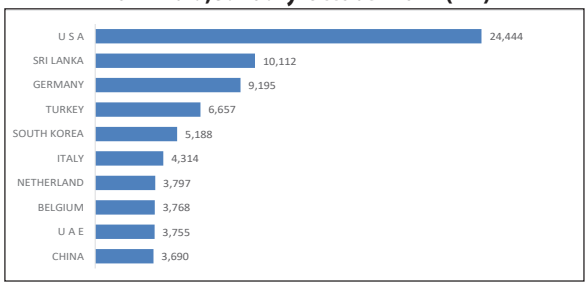
1 Euro = US$1.09 n.q. = no quote

MARKET REVIEW OF ACTIVATED CARBON

Activated carbon, also known as activated charcoal, is a highly porous material that is used to absorb impurities and contaminants. It is widely used in various industries, such as water treatment, air purification, food and beverage processing, and other industrial applications. Despite the economic uncertainties, the global trade of activated carbon has shown positive performance in 2022.

The global market for activated carbon is expected to grow at a CAGR of 8.5% from 2021 to 2028, reaching USD 8.12 billion by 2028. India, one of the major producing countries of activated carbon, has shown a 17.6% increase in exports in the January-December 2022 period, reaching a volume of 154,423.88 tons, with a value of US$311.80 million. The United States remains the primary importer of Indian activated carbon, with other significant importers being Sri Lanka, Germany, Turkey, South Korea, Italy, and the Netherlands.

Figure 1. Top 10 Export Destinations of Activated Carbon from India, January-October 2022 (MT)

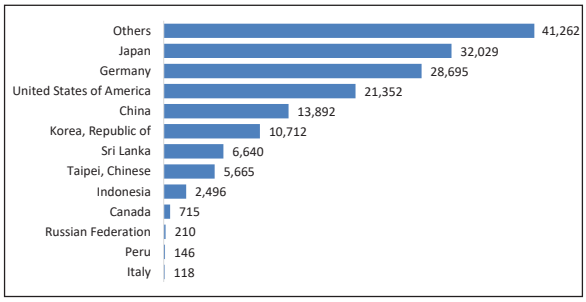


Source: Ministry of Commerce and Industry, India

Sri Lanka, another major producer of activated carbon, has also shown positive growth, with a 4% increase in volume and a 9% increase in earnings from activated carbon exports in the January-December 2022 period compared to the previous year. The United States, China, Germany, the United Kingdom, and Japan were among the primary importers of Sri Lankan activated carbon.

The Philippines has seen a significant increase of 22% in activated carbon exports, shipping 90,092 tons in the January-December 2022 period, up from 73,840 tons the previous year. Japan, Germany, the United States, China, and South Korea were among the primary importers of activated carbon from the Philippines. This growth in exports can be attributed to an increase in demand for activated carbon in the water treatment and air purification industries, as well as in the production of face masks in response to the COVID-19 pandemic.

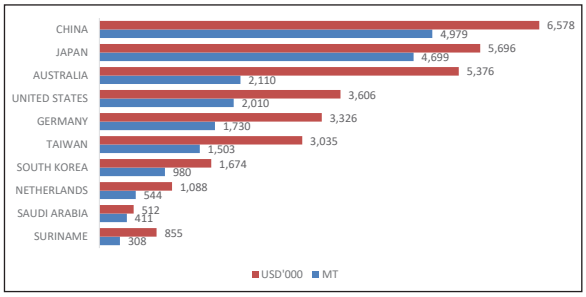
Figure 2. Export Destinations of Activated Carbon from Philippines, January-December 2022 (MT)



Source: UCAP

Finally, Indonesia, another significant producer of activated carbon, has shown a sign of recovery in the January-December 2022 period, with an 8% increase in activated carbon exports compared to the previous year. The country exported 25,832 tons of activated carbon in the period, generating export earnings of US$42.6 million.

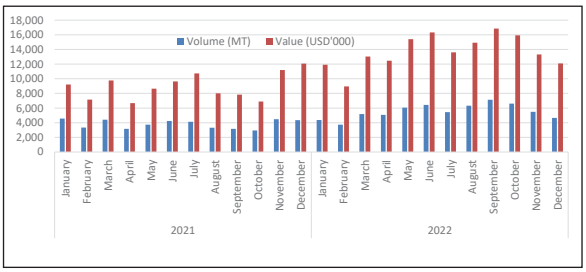
Figure 3. Top 10 Export Destinations of Activated Carbon from Indonesia, January-December 2022 (MT)



Source: UCAP

On the demand side, The United States is the largest importer of coconut shell-based activated carbon, with a volume of 66,470 tons in 2022, representing a 45% increase from the previous year. The demand for activated carbon in the US is driven by strict environmental regulations and an upswing in industrial activities requiring purification and filtration.

Figure 4. US Import of Coconut Shell Charcoal based Activated Carbon, January 2021- December 2022



Source: US Census Bureau

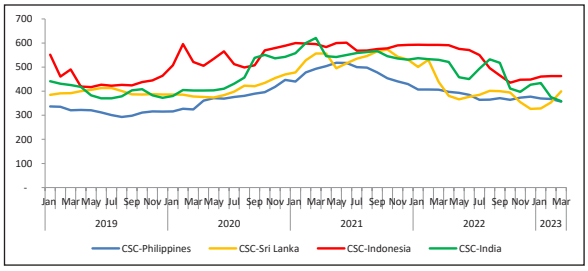
Japan is another significant importer of activated carbon, with an import volume of 86,191 tons in 2022, valued at US$168.17 million. This volume represents a 2% increase compared to the same period in the previous year. The demand for activated carbon in Japan is driven by similar factors as in the US, such as increased usage in water treatment and air purification, and expansion of the food and beverage processing industry.

Amid the increasing demand of the carbon, price of coconut shell charcoal as raw material for the carbon showed varying trends across different producing countries. In the first quarter of 2023, in the Philippines and India, the price demonstrated a downward trend, while in Sri Lanka, it increased, and in Indonesia, it remained relatively stable. The price of charcoal ranged from US$357/MT to US$463/MT in March 2023, indicating a diverse market for the commodity.

On the other hand, the export price of activated carbon demonstrated fluctuating trends during CY 2022. In Indonesia, the price was US$1,801/MT in January 2022, which decreased to US$1,545/MT in December 2022, with an average price of US$1,651/MY. Meanwhile, the price of the carbon in Sri Lanka was US$2,834/MT in January 2022 and slightly declined to US$2,821/MT in March 2022, reflecting a relatively stable market. The fluctuation in price could be attributed to various factors, such as changes in demand and supply, production costs, and global economic conditions.

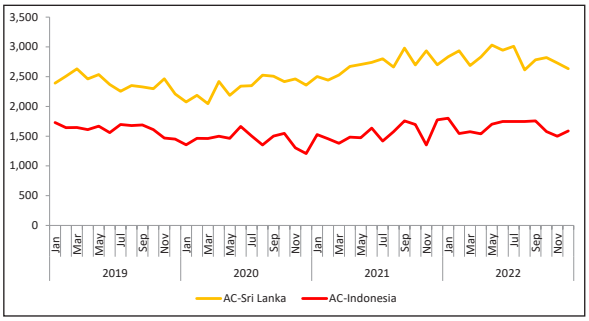
It is worth noting that the prices of raw materials, such as coconut shell charcoal, significantly impact the cost of producing activated carbon. Therefore, changes in the prices of these raw materials can affect the overall market trend for activated carbon. As the demand for activated carbon continues to increase across various industries, the prices of both raw materials and the final product are likely to remain volatile in the foreseeable future.

Figure 5. Price of Coconut Shell Charcoal US$/MT (FOB) in the Philippines, Sri Lanka, Indonesia, and India January 2019 –March 2023



Source: ICC database

Figure 6. Export Price of Activated Carbon US$/MT in Sri Lanka and Indonesia January 2019 – December 2022



Source: CDA, Sri Lanka and BPS Statistics Indonesia

COMMUNITY NEWS

WORKING VISIT OF THE INDONESIAN MINISTER OF TRADE TO ICC SECRETARIAT

The Indonesian Minister of Trade, H.E. Dr. (H.C.) H. Zulkifli Hasan, S.E., M.M., visited ICC Secretariat on 12th April 2023. His Excellency had an audiency with associations, manufacturers, farmers, and stakeholders in the coconut industry and supply chain, at BAPPEBTI Building Auditorium, Jl. Kramat Raya 172, Jakarta. The Minister also visited International Pepper Community Secretariat.

The Minister were accompanied by Mr. Djatmiko Bris Witjaksono, S.E., MSIE, Director General of International Trade Negotiation, Ministry of Trade Indonesia; Mr. Reza Pahlevi Chairul, S.Si., M.AS., Director for Interregional and International Organization Negotiation, Ministry of Trade Indonesia. Also participated in the audience, Prof. Dr. Ir. H. Nelson Pomalingo, M.Pd., Gorontalo Regent, Chairman, Coalition of Coconut-Producing Regencies (KOPEK).

Dr. Jelfina C. Alouw, Director, ICC delivered the welcome remarks, wherein she expressed appreciation to the Government of the Republic of Indonesia for its consistent and substantial support to realize the idea of making the coconut sector sustainable, resilient, and highly competitive.

She also addressed the coconut's vital role in economic, social, and public health, the country's economy, and its contribution to global environmental issues. She also wished for policy support to continue the improvement of infrastructure, transportation, efficiency of production and trade costs, both domestically and globally, maximize the industry in producing and marketing products of high economic value, strategic and sustainable efforts in improving the farmers' welfare. The video of coconut contribution to SDGs, ICC main programs, and activities was also played.

In his remarks, H.E. Dr. (H.C.) H. Zulkifli Hasan, S.E., M.M. mentioned that Indonesia join the ICC as one of the trade policies and strategies to support better market access and to boost Indonesian coconut products export. The downstream innovation is also necessary to increase coconut products' value-addition, especially the utilization of digital-based technology.

In the Questions & Answers Session, representatives of manufacturers and coconut associations shared the challenges they face, including price fluctuation, regulations, the need for an integrated database and information, and also "link and match" with universities.

Mr. Djatmiko Bris Witjaksono, S.E., MSIE, expressed the government's commitment to supporting the coconut sector, by formulating regulations and stabilizing coconut prices, in collaboration with other ministries, for the sake of the farmers' welfare.

The meeting was concluded with the presentation of ICC plaques to the Director General of International Trade Negotiation, Ministry of Trade Indonesia. *(ICC News)*

ICC ATTENDED THE ROUNDTABLE ON SUSTAINABLE COCONUT

ICC Secretariat was invited and attended the Roundtable on Sustainable Coconut conducted by Sustainable Coconut Partnership, at Lafite Room, Shangri-la Hotel, Kuala Lumpur Malaysia, on March 8th, 2023. The theme was "Investing in the Future of Coconuts: A First Look into a New Kind of Industry Sustainability Platform". Mr. Alit Pirmansah, Marketing and Statistic Officer, and Mr. Otniel Sintoro, Information and Publication Officer represented the ICC.

The objective of the meeting was to hear ICC's and other stakeholders' inputs on the transformation of the industry-led Roundtable Meeting series and exchange further about mutually beneficial collaboration with ICC. The event was also marking the occasion of

the Sustainable Coconut Partnership soft launch, a global sustainability platform in the commodities space, and a global multi-stakeholder consultation with inputs from more than 100 industry organizations and civil society groups. It aims to solve a generational challenge of livelihood and sustainability for millions of coconut farmers.

The platform brought together over 80 buyers, processors and other actors actively involved in coconut supply chains representing more than 40% of the industry to collaboratively find solutions and share investment approaches in establishing cost-effective sustainable coconut value chains and supporting farmers' livelihoods.

The panelists of the discussion were Mr. Jass Khaw, Global Sustainability Lead, Tropical Oils, AAK; Ms. Jessica Wettstein, Sustainability Sourcing Manager, APAC; Barry Callebaut; Mr. Ayyamani VJ Jagadish, Agronomist expert in coconut and cocoa; Datuk Darrel Weber, ex CEO of RSPO and sustainability board advisor/ chairman/trustee. The moderator of the discussion was Mr. Gregory Bardies, Executive Director, Sustainable Coconut Partnership.

The discussion followed by a Q& A Session in which panelists addressed questions by the audience. The conclusion and closing statement was addressed by Mr. Nicolas Ronderos, Collaboration Director, Sustainable Partnership/ Associate Director, Collaboration, BSR. The meeting ended with a networking reception where all participants could elaborate on further collaboration among themselves. *(ICC News)*

ICC-REVIEW COMMITTEE MEETING

The Review Committee Meeting of ICC held from 3-5 April 2023 at the meeting hall of the Hotel Grand Whiz in Bali, Indonesia. The meeting attended physically by the chair, ICC Technical working group, members and invited experts from India, Indonesia, Papua New Guinea, Philippines, Sri Lanka and Thailand. The members from CDB India joined virtually.

The meeting started with the welcome address of Dr. Jelfina C. Alouw, Executive Director. In her address she mentioned the main objective of convening this meeting and pointed out the contribution of coconut sector to the Sustainable Development Goals (SDGs) so that multilateral supports for coconut development is urgently needed, and she welcomed all for the meeting and requested to participate actively in the deliberations and share valuable suggestions and inputs to ICC in reviewing the Strategic Plan. Mr. Benjamin Madrigal, chair, ICC Technical Working Group in his address reminded everybody the main objectives of the ICC Technical Working Group which is to harmonize, support, and integrate efforts with the Secretariat for the benefit of all member countries; level up the value and significance of the ICC for it to become more responsive to the needs of the industry and the members, and lastly assist the secretariat in setting the global direction of the ICC and the coconut industry with equitable benefits for all stakeholders of the industry.

The two-day deliberations started with the presentation of Dr. Alouw on the current status of coconut sector development, challenges, opportunities and strategies that the ICC has taken and still need to be done in addressing the challenges and meeting the opportunities. Furthermore, the deliberation on the vision, mission and 5-year Strategic Plan (2020-2024) and technical and policy inputs for strategic Plan 2025-2029 of ICC was led by General. Madrigal, the chairman of TWG. There were in-depth discussions in which all the members actively participated. Other agendas discussed in the meeting were Review of Outstanding Annual Contribution from some member countries and develop measures to address them; COCOFIX Project Proposal (Carbon Sequestration and Carbon Credit) proposed by the private sector; Collaboration with Sustainable Coconut Partnership and Issue on Coconut Harvesting Using Monkeys. Based on two days deliberations, the committee provided recommendations to be implemented by ICC in

associations with the member countries for the sustainable development of the sector.

The two days in house meeting concluded with the closing remarks of Dr. Jelfina C. Alouw, Executive Director. She expressed her gratefulness to Chair, ICC TWG and members for accepting ICC invitations for participating in this meeting and to share the valuable inputs and suggestions. ICC will include the suggestions and recommendations of the committee while drafting the 5 year strategic plan (2024-2029).

The other members attended the meeting are: Dr. N. Vijaya Lakshmi, IAS , Chief Executive Officer, CDB and ANLO India, Dr. B.Hanumanthe Gowda, Chief Coconut Development Officer, CDB and TWG member, India , Dr. C. Anandharamakrishnan, Director, NIIST, India, Mrs. Deepthi S.Nair, Director, CDB India , Mr. Reza Pahlevi Chairul, Director for Interregional and International Organization Negotiation & ANLO, Indonesia, Mr. Alan Aku, Managing Director, KIK, and member TWG, Papua New Guinea, Mr. Bernie Ferrer Cruz, Administrator, Philippines Coconut Authority and TWG member Philippines, Dr. Lalith Perera, Additional Director, CRI and TWG member Sri Lanka, Mrs. Supattra Lertwattanakiat, Senior Expert in Fruit Crop, HRI and TWG member, Thailand. *(ICC News)*

A FRUITFUL VISIT TO THE MINISTRY OF AGRICULTURE AND COOPERATIVE GOVERNMENT OF THAILAND

The Executive Director of the International Coconut Community (ICC), Dr. Jelfina C. Alouw recently had a productive visit to the Ministry of Agriculture and Cooperative Government of Thailand on 28th March 2023. The prime focus of the visit was to discuss around the 59th Session and Ministerial Meeting of the ICC, which is slated to be held in Bangkok.

The Executive Director, Dr. Jelfina C. Alouw was received warmly by the Directorate General of the Ministry of Agriculture and Cooperative Government of Thailand, Mr. Rapibhat Chandarasrivongs and the team. The Executive Director and Mr. Chandarasrivongs had fruitful discussions about the upcoming Session and Ministerial Meeting. The Director General agreed enthusiastically to host the session in Bangkok, which will see the attendance of representatives from 20 member countries of the ICC.

59th Session and Ministerial Meeting

After hosted by government of Tonga in 2022, the Session and Ministerial Meeting of ICC in 2023 will be hosted by Government of Thailand with key aspects of reviewing country's report of Coconut Industry of Member Countries, report of ICC programs, purposed ICC program in 2024, proposed budget CY2024, decisions on discussion from review committee meeting and other matters. Apart from regular agendas, the upcoming meeting will delve into important topics such as sustainable development and the production of sustainable coconut products. Other key issues include the topic of carbon credits and the rise of biodegradable products in the coconut industry.

Monkey Free Plus Project: A Priority

Another major point of discussion was Monkey Free Plus project. Mr. Chandarasrivongs expressed keen interest in having further meetings on this subject with related organizations, embassies, and NGOs, including People for the Ethical Treatment of Animals (PETA). The objective is to highlight the efforts Thailand has made towards implementing the Monkey Free Plus project and to promote recognition for the country's commitment to ethical and sustainable coconut harvesting practices.

This visit marks a significant step forward for the ICC and its member countries, setting the stage for future discussions on sustainability, ethical practices, and industry innovations. The ICC is excited about the upcoming 59th Session and Ministerial Meeting in Bangkok and anticipates fruitful discussions that will

further strengthen the international coconut community. *(ICC News)*

COCONUTS ARE NATURAL: A TOOL FOR PROTECTING SHORELINES

With the help of the lowly coconut, coastal towns all around the world are giving coastline protection a tropical touch.

Coir, or coconut husk, is being used in coastline protection projects all over the world, from the sands of the Jersey Shore to the Indonesian islands and Canadian coasts.

The coconut material is frequently utilized in conjunction with other strategies since it is affordable, widely accessible, and sustainable. The developing world is where this is especially true. However, wealthy nations, where it is valued as a crucial component of "living shorelines" that use natural elements rather than rigid barriers made of wood, steel, or concrete, are also big fans of the substance.

In Neptune, New Jersey, on the Shark River, about a mile from the ocean, one such project is currently being installed along a section of the eroded river bank. The coastal conservation organization American Littoral Society is executing the $1.3 million project, which has already made a considerable improvement to what was formerly a severely deteriorated shoreline in a region that was devastated by Superstorm Sandy in 2012.

Tim Dillingham, the organization's executive director, said, "We're always trying to reduce wave energy while shielding the shoreline, and whenever we can, we like to employ nature-based solutions." This material is widely accessible, especially in poor nations, and it is reasonably priced when compared to harder materials.

The fibrous coconut shell fibers used to make coir are spun into mats or logs and frequently secured with netting. Fishing nets that have been abandoned or damaged can be used in developing countries.

Due to its flexibility, it can be bent and contoured to fit uneven shorelines while being secured by wooden stakes.

The substance made of coconut degrades naturally over time. However, before it does, it is occasionally pre-seeded with grasses and plants native to the shoreline, or the plants are planted in holes that can be drilled into the coir logs.

When the logs eventually decompose, the established plants and the sediment surrounding them remain in place to stabilize the shoreline. The logs hold the plants in place as they take root and grow.

Materials made from coconuts are employed in erosion control projects all around the world.

One of them is in Boston, where Julia Hopkins, an assistant professor at Northeastern University, is making floating mats out of materials like wood chips, coconut fibers, and other things to lessen the impact of waves and promote the growth of aquatic plants. Four of these mats are part of a test project in rivers near Boston. Hopkins imagines a system of hundreds or possibly thousands of mats interconnected to provide protection for a larger region.

She is happy with what she has so far observed. “Coconut fiber is organic material, it’s relatively cheap and it’s a discard,” she said. “It’s actually recycling something that was going to be discarded.”

Two projects in East Providence, Rhode Island, used coconut logs in 2020, and 2,400 feet (731 meters) of shoreline in New York’s Jamaica Bay that were eroded during Superstorm Sandy were stabilized in 2021 by a project that also included coconut coir logs.

Cape Cod, Massachusetts, did a similar project last year, and the Delaware Department of Natural Resources and Environmental Control

is offering funding to help landowners, homeowner associations and others install living shorelines made of materials that can include coconut fibers.

A project in Austin, Texas, stabilized part of the Lake Austin shoreline; monitoring from 2009 to 2014 showed decreased erosion and the healthy growth of native plants at the water's edge.

Indonesia is the world's largest coconut producer, with more than 17 million metric tons in 2021.

In 2018, researchers from the Bandung Institute of Technology's Oceanography Program used coconut husk materials to construct a sea wall in the Karangjaladri hamlet of Pangandaran Regency.

Residents of Diogue Island in Senegal are reclaiming degraded portions of beach using wooden constructions, coconut fronds, and sticks.

However, it doesn't always work.

It was set up in 2016 at the Sengekontacket Pond by the Felix Neck Wildlife Refuge in Edgartown, Massachusetts, on Martha's Vineyard, where a salt marsh had previously deteriorated by several feet. Even though it temporarily prevented erosion, the husks were quickly washed away by powerful wave action.

Director of the sanctuary Suzan Bellincampi remarked, "It got blown out several times." "After using it for a few years, we made the decision not to reinstall it.

In terms of what we intended to achieve and how we modified it, the project was incredibly exciting, she added. "It is not applicable to all sites; it must be site-specific. It is effective in certain locations but not all.

On Chapel Island in Nova Scotia, Canada, coconut fiber mats and logs were recently used, however they were destroyed by bad weather.

Coconut mats are used at another Canadian location, Lac des Battures, a lake on Nuns' Island in Montreal, to prevent the growth of invasive reeds close to the shore.

Trucked-in sand has combined with silt accumulating from the tides at the New Jersey site, a few miles south of the musical mecca of Asbury Park, to form a beach that is substantially broader than what was there before.

Fiddler crabs are currently hibernating beneath your feet, according to Capt. Al Modjeski, a restoration expert with the Littoral Society. They'll be thrilled to have this new environment. *(Terrace Standard)*

100,000 COCONUTS WERE REPLANTED IN BOHOL AFFECTED BY THE TYPHOON

More than 10 million coconut trees were destroyed by Super Typhoon "Odette" (Rai), which also had a serious impact on the copra sector. One of the municipalities in Bohol, San Isidro, had a catastrophic economic loss as a result of 130,000 coconut trees being cut down. The majority of these trees had produced copra for more than 50 years, which created uncertainty for the people in the township that raised coconuts.

In order to address this, the initiative RISE Coco (Recovery Intervention for Severely Affected Coconut Farming Communities of Bohol by Super Typhoon Odette), initiated by Cargill, CARE Philippines, and local partners, will transplant 100,000 coconut seedlings in the region.

With the help of 1,000 farming households from four municipalities in Bohol, the RISE Coco initiative will replace the damaged coconut trees on 700 hectares of coconut fields. By establishing farmer cooperatives for better access to markets and corporate buyers, farmer training on sustainable agriculture, the provision of alternative livelihoods while waiting for the coconut trees to bear fruit, and farmer-led propagation of seed nuts in community-based

seedbeds and nurseries are all methods of rehabilitation.

"This project has given them hope to endure for their children who will profit from the replanting of coconuts on their fields," Mayor Diosdado Gementiza said. "Sixty percent of my people are coconut farmers depending on the coconut industry.

During the commemorative tree-planting ceremony in the same San Isidro municipality, about 100 coconut seedlings were carefully chosen from the farmer-managed nursery in Barangay Cabanugan.

Restoring farmer incomes

These were some of the more than 20,000 coconut seedlings and nuts that were propagated throughout 10 nurseries in partner farming communities in the municipalities of San Isidro, Calape, Catigbian, and Loon in preparation for planting. In order to accomplish the milestone of 100,000 trees by the end of the year, the remaining seed nuts will be consolidated in the upcoming months, and propagated seedlings will be planted at the coconut farms of the partner farmers.

The RISE Coco project seeks to ensure that "coconut farmers who have been affected by the typhoon will rebuild their livelihoods, in a safe, responsible and sustainable way, and continue to benefit as our partners for economic development." Jonathan Sumpaico, Cargill's copra and palm origination commercial director, spoke of Cargill's commitment to improving "the livelihood of communities where we operate while meeting the increasing demand for sustainable coconut oil."

The Philippine Coconut sector Roadmap 2021–2040, which outlines the national initiative to revitalize the coconut sector, is in line with the sustainable value creation being done by RISE Coco. It is carried out in partnership with the Cebu-Bohol Relief and Rehabilitation Center, which aids CARE in implementing the project on the ground, and the Philippine Coconut Authority (PCA), whose Bohol Division Office has offered technical assistance to ensure alignment with PCA standards.

The country director for CARE, David Gazashvili, praised the partner communities for "managing their nurseries, learning valuable good agriculture practices from training and applying these in the rehabilitation of their farms and livelihood, and sustaining it for their children."

Bernie Cruz, the national administrator of the PCA, recommended the coconut farmers to diversify their sources of income by making copra and other byproducts from the husk, including charcoal, coco peat, and coco coir. The Manila Times reports that he advised farmers to engage in multicropping or intercropping "to augment their income by planting high-value crops or cash crops, especially at times when copra prices are low." *(The Manila Times)*

A DIVERSIFICATION PUSH FOR COCONUT AND UBE PRODUCTS IS PROPOSED FOR EXPORT

According to a representative of the exporters association, any endeavor to diversify exports should start with agricultural products, ideally those that are exclusive to the Philippines.

At a BusinessWorld Insights trade forum, Senen M. Perlada, executive vice-president of the Philippine Exporters Confederation, Inc., stated that "when it comes to exports, (the opportunities are in) products that have high local content... These are really agriculture-based."

According to Mr. Perlada, there is latent export potential for goods made from coconut, purple yam (ube), cacao, bananas, and fisheries, particularly if they are transformed into high-end goods like coconut water, banana flour, chocolate, and virgin coconut oil.

"Diversification, inventiveness, and innovation are crucial. But even with the fundamental goods, where we excel, we must really seize any innovation in these goods, according to Mr. Perlada.

Focusing on agricultural and marine exports, he claimed, "will help us address a lot of the trade deficit."

The trade imbalance increased to $58.3 billion last year from $42.2 billion in 2021, according to the Philippine Statistics Authority, as import growth outpaced export growth. While imports increased by 17.3% to $137.2 billion, exports increased by 5.6% to $78.8 billion.

The trade imbalance increased from $4.51 billion to $5.74 billion at the end of January.

A concentration on agricultural exports, according to Union Bank of the Philippines, Inc. chief economist Ruben Carlo O. Asuncion, would also increase food security.

It can kill two birds with one stone, in fact. We have issues with food security, and Mr. Asuncion explained how technology and creativity may improve food security while also boosting our food production so that we could export particular goods that are unique to the Philippines.

In order to investigate more export and trade options, Mr. Asuncion stressed the necessity to "retool" the workforce.

Clifford Academia, vice president of operations for Aboitiz InfraCapital Economic Estates, asked for changes to trade and business regulations to increase exports.

"We must take action if we want our jump to be exponential. The fundamentals of legislation, such as making it simpler to start a firm here and reducing the cost of conducting business, need to be improved, according to Mr. Academia.

In addition, Mr. Academia noted that as industrial parks expand around the nation, ecozones might aid in upgrading the skills of workers everywhere.

Since we are not in the city centers, industrial parks can implement some talent development interventions. In these places, we can cultivate talent so that we can serve businesses that offer higher-paying jobs, Mr. Academia said. *(Business World)*

FOR 5,000 WOMEN, SHYAMALA TURNS CLIMBING A COCONUT TREE INTO A CAKEWALK

Since the last ten years, a lot more women have entered the once-predominantly male industry of climbing coconut trees. This is primarily due to government programs designed to teach them skills that will enable them to live better lives. To teach the ladies and carry out its goals, it still requires someone on the ground.

In this situation, Shyamala P M is useful. Over 5,000 women in Kozhikode and other districts have received training from the 48-year-old native of Balussery on how to use the coconut climbing apparatus over the past ten years.

When she accepted a position with an industrial company in 2011, she was first exposed to the coconut climbing apparatus.

"Shyamala would sneakily pick up a machine and try to climb coconut trees during break time, while other workers were occupied eating lunch. I was more concerned about getting caught and reprimanded for operating the machine without authorization or supervision, says Shyamala, than I was about falling from the tree.

She claims that because to a significant advancement in technology, using the machine has made climbing coconut trees easier. According to Shyamala, "I have observed many hundreds of women make good money by climbing coconut trees and maintaining happy family lives."

In addition to persons from Lakshadweep, Sri Lanka, and other nations, she is contacted by the agriculture wings of several panchayats in different districts of Kerala to offer training programs. Many of the people who come up to me want to climb the trees on their own plots, I notice. The lack of traditional coconut tree climbers has led to a rise in their numbers, she claims. Rajan T P, her husband, also picked up the ability from Shyamala. Now he also instructs others. *(The New Indian Express)*

CONGOLE FARMERS GET TRAINING

Through road mapping and capacity building of stakeholders in Quezon province, the Research and Thought Leadership Department (RTLD) of the Southeast Asian Regional Center for Graduate Study and Research in Agriculture (Searca), hosted by the Philippines, is assisting the coconut industry in growing.

Searca reported that as part of the project titled "Development of the Coconut Industry Roadmap and Captivating Stakeholders of Quezon Province," it has begun by holding five-day back-to-back training workshops on roadmap development and marketing strategies in its headquarters here.

The Philippine Coconut Authority (PCA) in Region 4 and the provincial government of Quezon (PGQuezon) both participated in the training.

Glenn Gregorio, director of Searca, stated that the general goal of the training was to equip chosen representatives from the coconut industry in Quezon province with the skills necessary to develop a commodity roadmap as well as to market and brand their products in advance of the project's anticipated road mapping exercise.

The RTLD Program Director, Dr. Gerlie Tatlonghari, reaffirmed during the event's opening that Searca has been actively involved in commodities road mapping activities in the Philippines and other nearby Asean (Association of Southeast Asian Nations) countries. This was done on behalf of the Searca director.

She said that via these initiatives, it has become apparent that the road mapping process is a challenging but efficient means to involve and guarantee the participation of a wide variety of stakeholders in formulating plans and strategies for the development of agricultural value chains.

In order to help the national and local governments create roadmaps for the commodity business that are inclusive and owned by the stakeholders, Searca continues to offer technical assistance, according to Tatlonghari.

The first training workshop on roadmap development was led by Leilani Briosos-McDonough, the lead technical consultant for the coconut road mapping exercise. The workshop covered four key topics: an introduction to road mapping, the road mapping process, road mapping planning, and effective facilitation.

The second training workshop on marketing techniques was led by assistant professor Renen Szilardo de Guzman from the Department of Agribusiness Management and Entrepreneurship in the College of Economics and Management at the University of the Philippines Los Baos.

The participants in this second training class received instruction in the use of several marketing tools for material creation and online/social media content generation in addition to an introduction to the fundamentals of marketing, consumer behavior, and competition.

Members of the Pederasyon ng Samahan ng Magniniyog sa Quezon (PSMQ) and Provincial Agricultural and Fishery Council (PAFC) joined the agribusiness value chain, commodity, and industry experts who participated in this week-long event from the Office of the Provincial

Agriculturist (OPAg) of Quezon and PCA Region 4.

Gregorio stated that these professionals will coordinate and support the process of the province's roadmap formulation.

Ma makes up the coconut road mapping team for the province of Quezon. Agricultural technologists Lorenz Jude Crispino and Charlie Pagkaliwangan, John Carlo Llorin, administrative assistant, and Jansept Hello Geronimo, communication affairs officer, all of the OPAg Quezon; Yehlene Warain, project development officer, and agriculturist Marianne Maranan, all of the PCA Region 4; as well as selected members from PSMQ and PAF serve as the Roadmap Team Leaders. *(The Manila Times)*

COCONUT SHELL CUPS ARE A HIT AT THE G20 SHERPAS' MEETING

Joy George, a resident of Payavoor in Kannur, had joy and a sense of success when welcoming beverages were served in coconut shell cups during the G20 Sherpas' conference at Kumarakom.

The cups were provided by Mr. George, who has been creating things out of coconut shells for a number of years. They were well accepted by the delegates and introduced by the organizers as part of the green protocol. He thinks that his persistence in creating artifacts and other things from coconut shells helped him land the chance to demonstrate his abilities to delegations from other countries.

Amrutha Eco Products, the business he founded in Padiyur, Kannur, provided 200 mugs with a capacity of 250 ml for the conference.

In 2010, Mr. George, who hails from a line of traditional craftspeople, launched his own manufacturing facility at Padiyur. Prior to that, he and his brother had operated a business in Chandankamparam. Later, he and a friend operated a business in Kottayam's Ramapuram.

While still a college student, he recognized the enormous market potential for products made from coconut shells. At age 21, he made the decision to make it a career.

Aside from cups, he also produces highly sought-after food utensils like spoons, shovels, jugs, saucers, bowls, and beer mugs. In accordance with the customer's needs, he also customizes the products.

He was approached by the chief chef of the Kerala Tourism Development Corporation (KTDC), who provided him with the requirements and specifications, even for the G20 meeting. According to the specifications, the cups were produced in just a week, he claimed.

Few people wanted to work for George when he founded the company. However, there are now 15 workers.

He claimed that since the business launched online, demand has increased. The majority of his goods are offered for sale in stores and supermarkets. But given positive feedback, he intends to export them as well.

He buys the whole coconut to use in making the items. While he makes money by selling copra, he said that when making the products, he carefully selects the shell.

More than 10,000 goods are being produced and sold by the unit each month. However, because of the high tax that the government levies on such goods, he is unable to make a sizable profit margin. *(The Hindu)*

COCONUTS ARE USED BY SCIENTISTS TO SAVE THE NEW JERSEY COASTLINE

Shane Godshall, an ecologist, wades through two feet of muck while wearing waders in the

Thompsons Beach marsh on the Delaware Bay in Heislerville, Cumberland County, New Jersey.

He pauses, reaches into the goo, and takes out a piece of the coconut—the covert weapon scientists have been using to stop coastal erosion brought on by climate change.

More precisely, it's the coir, often known as the core or the fibrous outer husk of the coconut shell (pronounced koy-uh). Coir is often compressed into 10-foot logs and bound with biodegradable string.

Many of the various diameter, $80 to $169, logs used in this area arrive after three-month boat trips from Sri Lanka and India. Mutual Industries of North Philadelphia owns the Maryland company EcoDepot, which distributes a sizable portion of them.

The logs were positioned five years ago as part of a pilot project to restore and safeguard the marsh, according to Godshall, the American Littoral Society's habitat restoration project manager, who was holding up his dripping prize.

The name of the 62-year-old nonprofit organization dedicated to coastal conservation alludes to the littoral zone, also known as the "nearshore," which is the region of an ocean, lake, or river that is closest to the shore. This group describes itself as "a voice for the coast."

Godshall succinctly stated the goal of the project, "We're working to raise this portion of the marsh to help sustain it."

Quinn Whitesall, the coordinator for habitat restoration at the American Littoral Society, which has its headquarters in Sandy Hook, New Jersey, said that coir logs will be utilized in further neighborhood projects in the upcoming months, including one planned for Earth Day.

The Thompsons Beach marsh was harmed by agriculture in the past when farmers constructed dykes and drained a large portion of the region, according to Godshall. However, because sea levels are rising due to climate change, marshes are at even greater risk, according to research.

According to scientists, marsh grass can't survive for an extended period of time submerged in water since it takes oxygen up from its roots.

According to the National Oceanic and Atmospheric Administration, development and sea level rise are mostly to blame for the estimated 80,000 acres of salt marshes and other coastal wetlands that the United States loses every year.

According to Capt. Al Modjeski, director of the American Littoral Society's Habitat Restoration program, "Climate change is the No. 1 killer of marshes because plants drown." He is also an authorized small boat captain.

A marsh becomes little more than a mudflat without grass.

The goal of increasing the marsh, according to Godshall, is to increase grass growth and prevent erosion.

Coir logs also help in the effort.

350 coir logs, each weighing about 70 pounds, were stacked and staked in by society workers to form a one-acre containment area that was then filled with a slurry of 3,500 cubic yards of mud and brackish water that was pumped in from a nearby creek. According to Godshall, the coir log-contained portion of the marsh had risen by roughly 2½ feet.

He claimed that thus far, the program is succeeding and grasses are thriving.

That is essential, according to Modjeski, because fish and birds like egrets and herons are drawn to the marsh. Additionally, marsh grass takes carbon dioxide out of the atmosphere.

According to the NOAA, during storms, marshes absorb flood waters and wave energy from

coastal waterways, reducing property damage in nearby communities by up to 20%.

According to a University of California, San Diego research, marshes produce $695,000 in value per square mile by lessening the effects of storm surge and floods, according to a report by The Pew Charitable Trusts.

According to studies, marshes also serve as a filter for the bay's harmful inflow of septic system runoff and animal waste.

For many reasons, including the fact that it is home to "the highest population of horseshoe crabs in the known universe," according to Godshall, it is crucial to maintain the bay's cleanliness.

Superior than rocks

According to Brian Resch, operations manager of EcoDepot in Finksburg, Maryland, an hour south of York, Pennsylvania, coir logs are essential along riverbanks and beaches all over the world because they are a natural substance that grass and trees can grow in.

"We found in the Chesapeake Bay that buttressing coasts and embankments with stone was detrimental because crabs and fish couldn't reproduce amidst rocks," the scientist stated.

With coir logs, however, they thrived and erosion was stopped, according to Resch.

He said that although established grasses continue to shield embankments as coir logs eventually rot away.

On Earth Day, April 22, the Littoral Society will utilize volunteers to add coir logs and recycled natural Christmas trees to Beaverdam Creek in Point Pleasant, Ocean County, in an effort to continue the fight against erosion.

According to a Society blog, the materials will be used in breakwaters that limit erosion to slow currents and trap sediment being carried in the water, allowing the neighboring marsh to repopulate.

In order to strengthen the river's breakwaters, the Society intends to add 2,600 feet of coir logs at the mouth of the Maurice River in Cumberland County later in the spring, according to Modjeski.

He continued, "We plan to keep using coir logs in our restoration work." And there is still a ton of work to be done. *(Phys.org)*

OUR SECRET WEAPON IN THE FIGHT AGAINST INVASIVE BEETLE COULD BE PINT-SIZE PLANTS

After years of attempting to contain their spread, Hawaii's invasive species experts said in January that Oahu had lost its battle to eradicate the coconut rhinoceros beetle.

The nocturnal flying beetles, which were found on Oahu for the first time in December 2013, build their nests in the mulch and compost that are moved across the island for landscaping and gardening.

They run the risk of eradicating Hawaii's palm tree species and harming a number of other fruit trees. On a small plot of land at the University of Hawaii Urban Garden Center, however, researchers are devising strategies for defending themselves.

There are a dozen or so immature coconut trees growing in rows, each with a tight gill netting scarf.

Joshua Silva, a University of Hawaii extension agent, pulls an inch-long male coconut rhinoceros beetle out of the base of a tree in the middle of a crop. The beetle has already made its way into the tree's heart in search of sprouting leaves.

In this case, the plant will survive the beetle's ferocious appetite.

The low-bearing coconut trees were planted as part of an experiment around 18 months ago; researchers expect that the results of the project would help them manage the invasive pest in Hawaii.

The trees won't grow as tall as the 100-foot-tall coconut palms that line Waikiki, but that is on purpose.

The bug issue is now at eye level.

This suggests that it should be simpler to catch and manage the bugs, especially for those growing coconuts organically.

The only other option would be to inject insecticides into the trees, which would render the fruit unusable for at least a year and end the harvest's organic certification.

There is currently no effective organic chemical control for them, according to Silva.

Think small to succeed

Farmers on all of the islands are closely monitoring Oahu's insect issue and any potential remedies.

Griffin Shepard, who owns and operates Aloha Organics dwarf coconut tree farm on Kauai's northwest shore, is one such grower.

Each of his 350 mature trees can provide 250 nuts annually, which Shepard sprouts and sells throughout the chain of islands.

700 sprouting nuts were shipped to Mahi Pono on Maui, where he sells them by the pallet.

They are in greater demand than their taller counterparts and require far less work.

The coconuts can get brown, fall off, and lay there for months before you add mulch and allow it to sprout, according to Shepard, who claimed that they are largely pest-resistant.

That is, unless something that has the ability to completely destroy his crop, like the bug, appears.

They certainly seem to be a problem. However, it's much simpler to have a low-status tree where you can access the crown rather than a tall tree where you can't see what's happening, according to Shepard.

The little trees may make it simpler to deal with the ongoing threat posed by the coconut rhinoceros beetle, but they also make it unclear whether Hawaii is prepared to make the necessary investments to actually eradicate the invader.

Remove Or Not?

According to acting plant industry division manager Darcy Oishi of the Department of Agriculture, eradication is not impossible but it cannot be accomplished with the money available right now.

Oishi stated in an interview that "it's not necessarily the conscious choice and the department, or myself, saying we want to stop the eradication program." "More funding and resources are required to carry us down the road of eradication if we are to continue on that path."

Federal cash totaling $1.44 million was received by DOA, which it used to organize UH's Coconut Rhinoceros Beetle Response.

Early in March, DOA declared that it will carry on working with the university, modifying the 3,000 traps placed throughout Oahu, and adding cameras to lessen the need for manual tracking.

However, House Bill 1149, which would increase the program's core funding and create more than 10 positions devoted to insect control, is currently being considered by lawmakers.

Oishi calculated that it would cost $5 million to fund the urgently required infrastructure and research.

Oishi stressed the significance of community awareness in the interim, emphasizing the need to be cautious when using compost and to report any sightings of the creatures.

Invasive species experts frequently point to the military community's response to CRB's initial discovery at Joint Base Pearl Harbor-Hickam as the most effective example of control.

Oishi stated that the community's level of mindfulness, which included knowledge of how to prevent constructing nesting sites and ensure prompt reporting of incidents, was an example for the rest of Oahu to follow.

"We haven't been able to engage the community in the areas where we have the highest population of the beetle," he said. *(Honolulu Civil Beat)*

INDONESIA SEEKS TO STRENGTHEN PLANTATION RESILIENCE THROUGH REVITALIZATION OF THE PALM TREE

To ensure national plantation resilience, the Agriculture Ministry has requested public palm revitalization (PSR) on 2.8 million hectares of plantations, according to the article. Agriculture Minister Syahrul Yasin Limpo said during the National Palm Coordination Meeting that the government must make sure the public palm revitalization initiative can go as planned.

Due to low productivity and unoptimized agro-input, public palm farms are still in crisis, producing just three to four tons of crude palm oil equivalent per hectare, which, if left unchecked, might jeopardize the future of the country's palm oil. He added, "The public palm rejuvenation initiative is the government's effort to develop the upstream sector of public palm plantations by replacing old, unproductive plants.

The initiative was introduced in 2017. It intends to replace older-than-25-year palm trees that are less productive than they once were on public estates. The PSR initiative seeks to annually replace palms on 180.000 hectares of plantation land in 21 regions that produce palms. *(UCAP Bulletin)*

SEEDS FROM RARE SEA COCONUT ARE HARVESTED BY NONG NOOCH TROPICAL GARDEN

11 ripe double coconuts from Nong Nooch Tropical Garden were peeled in order to collect the seeds needed to produce more of the pricey, rare fruit.

At the March 8 performance, park director Kampol Tansajja helped peel 11 sea coconuts, also known as "double coconuts," which have two concentric shells. Due to its rarity, the double-shelled sea coconut has a street price of 200,000 Baht. Sea coconuts with only one shell cost half as much.

According to Kampol, sea coconuts are a type of palm that originated in the Seychelles. Of all the varieties of palm seeds, it has the largest seed.

Nong Nooch Tropical Garden now boasts 38 double coconut trees, of which 25 are gender-unknown while the other four are male and nine are female. Each tree itself costs 500,000 baht.

Additionally, the Nong Nooch Tropical Garden has 1,567 different species of palm trees, of which more than 200 are found in the park's open areas.

The International Palm Society recognized Nong Nooch Tropical Garden as having the greatest variety of palm species on earth.

The sea coconut was first discovered floating in the water by early French explorers who were searching for trees. Some early explorers thought the trees must be underwater, while

others thought they were fruits that descended from heaven.

Each of the heaviest sea coconuts ever discovered weighs 20 kilograms. It takes the fruit seven years to ripen. Trees take a year to set root and more than 20 years to start bearing fruit. *(Pattaya Mail)*

CHANGES TO THE STATE'S COCONUT RHINOCEROS BEETLE PREVENTION PLAN

With new technology added to the traps, the state's fight against the coconut rhinoceros beetle changes.

According to officials, it will actually be more efficient and cost the taxpayers less.

In a continued endeavor to get rid of the coconut rhinoceros beetle, the State Department of Agriculture placed up more than 3,000 traps all across Oahu.

Coconut palm trees and other plants are threatened by the invasive species. Dogs were once taught to detect the bugs as well. However, the state claimed that the conflict was too expensive in January.

According to Darcy Oishi, interim plant industry administrator at the Department of Agriculture, "we're in the process of finalizing a revised strategy with the US Department of Agriculture that will focus on containment on Oahu."

It also entails collaborating with the University of Hawaii to create a trap that is more effective.

"It's just an improved version of the same trap. A camera, solar panels to power the camera, a cellular modem to report information to us, and something to alert us if it has fallen are the only additions, according to Oishi.

In addition to offering additional information, he claimed that the new technology will also make maintaining these traps less expensive.

"This actually reduces our cost because right now, we spend a lot of money on people, cars, and gas in order to check each of these traps, whether they have a beetle or not," claimed Oishi.

According to him, maintaining the current traps costs roughly $800 a year, but the new traps will cost between $200 and $400.

According to him, roughly a dozen fresh traps have already been set up, and it is the intention to replace them all.

The goal, according to Oishi, is to learn more about the beetles' movements so that we can eliminate them after discovering where they breed.

Making sure the bugs don't reach the nearby islands is another aspect of the plan.

To ensure that we are vigilant over our high priority regions that are likely to get coconut rhinoceros beetles, we will be expanding our efforts to additional islands, according to Oishi.

Oishi stated that the cost of the new plan has not yet been calculated. *(Khon 2)*

£250,000 IS RAISED BY PERMIA SENSING TO DETECT WEEVILS ON COCONUT PALM TREES

An acoustic sensor and artificial intelligence are used by the Imperial College London spinout to detect the sounds of red palm weevils on coconut palm trees.

Coconut palm trees are harmed by red palm weevils, and farmers are alerted via the Permia app if weevils are found by the sensors.

CEO of Permia Sensing Efrem de Paiva stated: "We intend to assist farmers worldwide in producing the greatest sustainable produce from the healthiest trees using Permia's technology.

"We can reduce CO2 emissions by minimizing some necessary input, not to mention the social

impact of generating more income throughout the supply chain."

The software offers suggestions for methods for farmers to increase their harvests depending on the data it collects, and the sensors can also monitor a tree's health.

Permia Sensing will be able to carry out its current testing at Sri Lankan crops because to the pre-seed funding from Jenson.

According to Sarah Barber, CEO of Jenson Funding Partners, "palm is used in so many products around the world that it's important farmers have access to the tools needed to produce the highest yield."

This month, Jenson Funding Partners also contributed £250k to SphereTrax, a blockchain licensing software. Jenson unveiled its £60 million green technology fund in December. *(UKTN)*

TRADE NEWS

INDUSTRY PERSPECTIVE

Vegetable oil prices eased this week.

Coconut oil in Rotterdam market resumed inactivity despite easing prices with buying support virtually absent and price spread over palm kernel oil widened. Last week it reported an only trade done at $1,100/MT CIF. Market opened this week mixed with nearby offers firmer and forwards easier; levels stood at $1,122.50-1,150.00/MT CIF for positions from March/April through to September/October. Thereafter, values stayed mostly unchanged or slid where changed but ended the week in the downside, tracking the weaker vegetable oils market. At the close, levels were down to $1,097.50-1,110.00/MT CIF.

Palm kernel on the other hand continued to see action during the week reporting a single trade at $1,020/MT CIF, below week-ago at $1,075/MT. Opening quotes were easier at $1,050-1,052.50/MT CIF for positions from April/May through to September/October and then tracked for the most part of the week lower, but closing the week in the upside at $1,030-1,065/MT.

The price premium of coconut oil over palm kernel oil were little moved across all positions, save for deferred last quarter positions. This placed the average spread higher, after four weeks of continuous contractions, at $68.59/MT from $64.97 a week ago. Premium per position are shown following: March/April $25.00 ($33.67 last week); April/May $73.00 ($72.50); May/June $72.00 ($73.50); June/July $71.50 ($73.00); July/August $72.25 ($75.00); August/September $72.50 ($72.14); September/October $72.50 ($55.00); October/November $90.00 (new position).

At the CBOT soya complex market, soybean futures tracked lower on rising global economic concerns around the stability of the US banking sector following the collapse of two major banks in the country. However, soybean oil was the strongest segment in the soya complex, supporting a short-lived recovery in soybean futures lately. The market closed in the downside following late declines in products, oil and meal.

At the palm oil sector, market shortly recovered after an easier start but promptly returned to the negative zone afterwards amid weaker vegetable oils and crude oil prices. The downward course was interrupted on reports from cargo surveyors indicating solid export demand, with first half March palm oil export from Malaysia increasing 72% from same time last month. The jump was credited in part to India's increased uptake ahead of the Muslim festival Eid.

Prices of tropical oils for nearest forward shipment show lauric oils still in the negative territory while palm has already recovered from respective week-ago levels. Coconut oil slid $10.50 from week-ago at $1,127 to this week's $1,116.50/MT CIF; palm kernel oil skidded $49.83

from $1,093.33 to $1,043.50/MT CIF; while palm oil advanced materially by $57.67 from $978.33 to $1,036.00/MT CIF. Consequently, the price premium of coconut oil over palm kernel oil massively widened from $33.67 week ago to $73.00/MT currently while premium over palm oil substantially tightened from $148.67 to $80.50/MT. *(UCAP Bulletin)*

MARKET ROUND-UP OF COCONUT OIL

In Rotterdam, the coconut oil market was quiet again after last week's single trade at $1,100/MT CIF for March/April delivery. Lower prices prevailed this week with closing offers at week's lowest at $1,110 for March/April; $1,100 for April/May and May/June; $1,097.50 for June/July; and $1,100/MT CIF for July/August, August/September, and September/October. Buying support was very thin and were posted at close at $1,070/MT CIF for June/July and July/August; other positions were neglected.

The FOB coconut oil market remained closed. *(UCAP Bulletin)*

IN THE MALDIVES, COCONUT PRICES ARE SKYROCKETING

Coconut prices have increased significantly, from MVR 300 per sack to a skyrocketing MVR 1,600 per bag.

A single coconut was sold for between MVR 5 and MVR 15 around three months ago, while a sack of coconuts cost between MVR 250 and MVR 300 per sack.

At the local market in Malé, a single coconut currently costs between MVR 15 and MVR 35. A local trader claimed that the atolls' lack of coconuts was to blame for the price spike.

Coconuts are purchased from all over the nation and sold at the Malé local market. The three atolls with the biggest recorded donations were Haa Alifu atoll Kelaa, Alifu Alifu atoll Thoddoo, and Kaafu atoll Kaashidhoo. Laamu atoll and Addu City also made significant contributions.

Due to the restricted supply of coconuts from the atolls, another local trader said that they have started importing coconuts from India. Despite the fact that coconuts are imported from abroad, the wholesale and retail prices are unaffected. Additionally, the vendor claimed that demand for coconuts had increased prior to Ramadan.

Even though many vendors predicted that prices would likely drop to their current levels after Ramadan, they did not predict that they would go back to the prices at which coconuts were being sold three months ago. *(The Edition)*

RECOGNIZED COCONUT INDUSTRY INVESTORS

Coconut Millers Pte Limited Presidential Award for Farmers honored Fijians who have made investments in the coconut business.

President Ratu Wiliame Katonivere, who presided over the occasion, appreciated the effort and sacrifice put into the coconut growing industry.

Katonivere congratulated the winners and expressed his gratitude to them, as well as to other farmers, for their efforts to the coconut business.

The goal of a ceremony like this is to inspire participants to exceed predetermined standards or work toward a benchmark. Farmers in this situation can share their knowledge and expertise with the ultimate goal of promoting and enhancing the sector because it brings out the best in participants.

The awards, which were a first of their type, honored female farmers and young farmers for their accomplishments.

The dedication and contributions of the coconut business have allowed it to flourish for more than 40 years and support generational wealth

that is of enormous significance both culturally and commercially. *(FBC News)*

JP FARMS EXPORTS COCONUTS IN FIRST SHIPMENT

The shipment, which also contains green bananas farmed in Jamaica, "marks a significant milestone for the conglomerate," the company claims.

Although JP Farms has previously sold its coconuts to regional producers of coconut water, the business has recently looked into exporting the crop. The company's 50-acre farm at Annotto Bay, St. Mary, grows coconuts on more than 1,000 trees.

JP Farms Pineapple and Coconut Manager Tariq Kelly said, "We are concentrating on enhancing our coconut fields to boost our total jelly production and the size and sweetness of the harvest.

With the increase in production, the company hopes to satisfy both domestic and international demand. Currently, it delivers between 1,000 and 2,000 jelly coconuts per week to the neighborhood market.

The business announced that it had shipped a test shipment of jelly coconuts to a client in Connecticut and that it intended to expand the trade of the produce to other regions of North America and other territories. The agricultural company is now in discussions with its clients about exporting both jelly and dry coconuts, and it is still open to new options. However, according to Gayon Douglas, marketing manager at JP Farms, "nothing concrete yet."

She said that there are currently no plans for the company to move into the sale of bottled coconut water.

JP Farms obtained a coconut export license from the Jamaica Agricultural Commodities Regulatory Authority in 2022 in order to get ready for this next era of exports.

JP Farms Commercial Manager Neleta White made the following statement regarding the company's potential for exporting coconuts: "We are awaiting feedback from our customer on the trade acceptance and rate of sale of the dry coconuts... dry coconuts are not typically a fast-moving product so we are not expecting orders to come in at the same rate as our banana export orders."

However, she was upbeat that the sale of the dry coconuts would pave the way for the export of jelly coconuts and said that her team was eager to sign up new clients for the product. In actuality, White stated that the coconuts exported will be sold in shops all around Connecticut and New York.

However, the company acknowledges that demand will determine how often it exports jelly or dry coconuts to the US and other countries. *(Jamaica Observer)*

OTHER VEGEOIL NEWS

THAILAND IS INVITED BY MALAYSIA TO JOIN CPOPC

According to a report in the Bernama earlier this week, Malaysia has extended an invitation to Thailand to become a member of the Council of Palm Oil Producing Countries (CPOPC) in order to provide the organization a stronger voice in addressing discriminatory protectionist measures against palm oil and rubber producers at the Asean level. With Malaysia, Indonesia, and Thailand banding together, they might speak with a stronger and louder voice, according to Deputy Prime Minister Datuk Seri Fadillah Yusof, who is also Minister of Plantations and Commodities.

The CPOPC ministerial meeting will take place in Malaysia this year, which will also serve as chairman. Fadillah stated that the CPOPC would discuss how to handle problems from outside, notably those coming from the

European Union (EU) and the United States (US). Implementing the EU Deforestation Regulation (EUDR), which is founded on the idea that commodity products should not be produced using forced labor and should not cause deforestation, is one of the difficulties or pressures faced. *(UCAP Bulletin)*

RESURRECTION OF PALM OIL OUTPUT IS LIKELY, BUT GROWTH DYNAMICS ARE LOST

The development of the labor force in the producing nations will certainly contribute to a recovery in palm oil production in the second half of this year. Thomas Mielke, executive director of ISTA Mielke GmbH's Oil World, claimed that the oil palm plantation sector has lost its growth dynamics and is unlikely to double its growth, as it has been doing every ten years, because of the potential threat posed by El Nio, which is anticipated to occur in July/December 2023 and January/December 2024.

"At this rate, in my opinion, palm oil production will considerably slow down in the next 10 years to only 1.9 million MT average growth per year or even less, compared to the average growth of 2.9 million MT in the 10 years up to 2020," the expert predicted. On March 8, Mielke stated at the Annual Palm & Lauric Oils Price Outlook Conference & Exhibition in Kuala Lumpur that there is a chance that the world's supply of palm oil may fall short of demand if the need for food and biofuel keeps rising.

The absence of replanting, management restrictions, rising input costs, stringent sustainability criteria that deter investments, and a slowdown in new plantings are all contributing factors to the development in Malaysia and Indonesia, according to him. However, he predicted that the world's palm oil production would rise by 2.1 million MT this year to 80.9 million MT, with Malaysia's production increasing by 0.6% to 19.0 million MT and Indonesia's production rising by 1.2 million MT to 46.7 million MT. *(UCAP Bulletin)*

HONG KONG START-UP TO CONSTRUCT SECOND BIOFUEL PLANT USING WASTEWATER FROM PALM OIL MILLS AND UCO

In order to turn used cooking oil (UCO) and wastewater from palm oil mills into low-carbon fuel for airplanes and cars, EcoCeres has announced plans to build a second biofuel facility. The factory will be situated in Johor Bahru, Malaysia, and should be finished in approximately two years. It will have a capacity of roughly 350,000 MT of low-carbon transportation fuel annually. China was the location of EcoCeres' first facility.

In Zhangjiagang, Jiangsu province, EcoCeres, a division of local energy provider Hong Kong and China Gas (Towngas), runs a waste-oil processing facility with a production capacity of 100,000 MT/year of sustainable aviation fuel (SAF) and 200,000 MT/year of renewable diesel fuel. According to the study, the plant began operating commercially in early 2021 and supplied the European market with all of its present output. *(UCAP Bulletin)*

HEALTH NEWS

LEARN HOW TO MAKE THIS GLUTEN-FREE ALTERNATIVE AT HOME USING COCONUT FLOUR

Coconut is one of the healthiest foods accessible, and it also yields a variety of ingredients that are utilized in cuisine. Included in this are coconut milk, oil, and flour—a brand-new coconut-based grain-free, gluten-free, and keto-friendly flour. Since the ketogenic diet has become more well-known, coconut flour is now frequently substituted for refined or whole wheat flour in recipes. This substitutes the proteins and fiber found in coconut flour for the carbohydrates found in grains. However, since coconut flour doesn't quite have the same consistency as flour made from grains, using it in

recipes might be difficult. Additionally, coconut flour is more expensive and harder to find in grocery stores than traditional grain flours. Additionally, coconut flour is more expensive and more difficult to find in grocery stores and supermarkets than traditional grain flours. The good news is that you can easily prepare it at home, which will make including it in your diet easier for you.

Let's start by accurately defining coconut flour. It is manufactured from dried coconut meat and is a delicate, grain-free flour. Coconut flour is a by-product of manufacturing coconut milk and is relatively simple to make at home. To manufacture coconut flour, the residual mass from pressing coconut meat to obtain coconut milk is dried to remove any water that may have remained. To generate powdery and light coconut flour, leftover coconut meat is usually dried over low heat in a microwave until it resembles coarse sand.

In contrast to coconut oil or coconut meat, coconut flour has a lower level of saturated fat and a higher level of fiber and proteins. Although there isn't much official information available to pinpoint the precise nutritional values of various minerals and elements in coconut flour, it is thought to be satiating and beneficial for the skin. Due to its low salt and cholesterol content, it is also good for the heart. Now let's look at the options for at-home preparation.

One ripe coconut and one litre of water are all you need to make coconut flour at home. Here is the full process:

Before using a hammer or hand drill to break apart the mature coconut, drain the water out of it.

Use a kitchen knife to separate the soft coconut meat or coconut from the hard shell. The coconut meat can be separated from the skin with a regular vegetable peeler.

To put the coconut meat in the food processor, it needs to be chopped into smaller pieces. Increase the speed of the processor to high and pour in four cups, or one litre, of water.

Stop blending as soon as the water and coconut meat have been properly mixed to a thick, smooth paste. Wait a while before using the paste.

Pour the coconut milk over a cheesecloth or nut milk bag that has been placed on top of a big bowl. The residue will therefore accumulate all over the bag as a result.

Place the leftovers equally spaced out on a baking sheet that has been lined with parchment paper.

Bake the coconut residue for about 45 minutes after heating it in the microwave for 77 degrees Celsius.

Dehydrated parchment paper should have its pulp removed before being processed for one to two minutes on high in a dry food processor.

The coconut flour you get at the end of this process can be used to make cakes, brownies, breads, and other baked goods. So if you're looking for a gluten-free alternative to regular flour, coconut flour is a good option. *(Slurrp)*

WHAT ARE THE BENEFITS OF COCONUT CREAM?

Coconut cream, an extremely thick cream, is made from coconut milk. When compared to dairy products, coconut cream is comparable to heavy whipping cream. The ingredient can be used in a variety of ways in the kitchen to give curries, soups, and smoothies more thickness. Furthermore, coconut cream is frequently used in many foods that are keto-friendly due to its high fat, low carbohydrate nutritional profile. This article describes coconut cream, including what it is, how it varies from coconut milk, and its benefits. Its flavor is distinct and coconut-like, while its texture is thick and creamy. It is used often in many different types of cooking and is

recognized as a staple in several Southeast Asian countries. It is commonly used in numerous vegan and ketogenic dishes because it is unsweetened, low in carbohydrates, and dairy-free.

Coconut Milk Versus Coconut Cream

Coconut milk, a kind of vegan milk, is made from coconut pulp. It frequently appears in recipes from Latin America and Southeast Asia. The thick top layer of chilled coconut milk is skimmed off to create coconut cream, leaving behind the thinner, waterier portion beneath. Both savory and sweet dishes regularly substitute it for heavy cream when using vegan ingredients. Both ingredients share a similar, creamy taste that is similar to coconut. However, coconut milk has a thinner consistency and fewer calories and fat than coconut cream. Do not confuse coconut cream with cream of coconut, a sweetened syrup typically made from coconut milk and sugar and tasting something like condensed milk.

Benefits Of Coconut Cream

1. Energy Is Provided, and Endurance Is Increased

Medium-chain triglycerides, such as those in coconut milk, are readily absorbed by the body because they are not digested in the stomach. In addition to being a healthy fat, it provides more energy for a longer period of time, which enhances performance.

2. Includes Vitamins

Coconut cream is a rich source of vitamin C, vitamin E, and various other B vitamins. These vitamins function as powerful antioxidants to combat free radicals and reduce the risk of the majority of serious illnesses.

3. Abounding in Minerals

Coconut cream contains large amounts of magnesium, potassium, and phosphorus. While magnesium is good for maintaining nerve function and for bone growth, potassium supplies the electrolytes.

4. May Facilitate Weight Loss

Eating coconut cream, which includes good fat, or eating it in the form of a curry will help you feel fuller and healthier for a longer amount of time. To avoid ingesting too many calories, bear in mind to watch the portion. *(Slurrp)*

NEW COCONUT SAP POWDER EXPLAINS CARDIOVASCULAR PROPERTIES

Blood pressure and arterial stiffness are crucial indicators of cardiovascular health as we age, according to study authors from the University of Kentucky and Ball State Universities. According to the results of the current pilot study, CSP has a possible cardioprotective impact on middle-aged and older persons by reducing brachial systolic blood pressure (SBP) and common carotid artery (CCA) mechanical stiffness after eight weeks.

Akay Natural Ingredients (a division of Oterra Group) funded the study, which was written up in the Journal of Applied Physiology, to assess the effects of the substance sold under the Cocozen brand.

Study Specifics

19 healthy Caucasian people with an average age of 55 were enrolled in the double-blind, randomized, placebo-controlled trial (mostly women). Over the course of eight weeks, participants either consumed 1.5 g of coconut sap powder (CSP) or a placebo containing aspartame. Before and after the test time, measurements of arterial stiffness and brachial and carotid blood pressure were taken for comparison.

According to the researchers, "Our findings show that CSP lowers brachial SBP by about 7.7 mmHg (about 7% improvement), which is clinically meaningful as a 10 mmHg drop in SBP reduces the risk for CVD-events and all-cause death by 20% and 13%, respectively. This is significant because CSP (3 g/day) had

no impact on blood pressure in a group of younger adults.

Inflammatory or antioxidant indicators were not affected by supplementation, which indicates that CSP may lower blood pressure through different pathways than those previously thought.

The study recommended additional investigation into the underlying mechanisms, the effects in a larger sample size and in individuals with high blood pressure, as well as the ideal dosage and length of treatment.

A unique coconut sap powder called Cocozen

The unfermented coconut inflorescence sap used in the study was provided by Akay Natural Ingredients, a provider of herbs, spices, and extracts from Kerala, an Indian state whose name means "land of coconuts" in the local Malayalam language. The component, which is branded and patented as Cocozen, is not yet commercially available since more research is needed to confirm its full nutritional benefits, uses, and traceability.

Emmanuel Nambusseril, chief marketing officer at Akay Natural Ingredients, stated that the component has "shown to possess immense potential in the area of sports performance and endurance based on our studies so far." It also has a lot of promise for the elderly population. It has a low glycemic index, is sweet, and is a source of several vitamins and minerals.

According to earlier studies, Cocozen decreases and reverses oxidation-induced changes in human peripheral blood mononuclear cells, raises levels of circulating antioxidant biomarkers in young, healthy adults, and lowers levels of oxidative and inflammatory markers linked to kidney disease in preclinical animal models. *(NutraIngredients-USA)*

COCONUT RECIPE

VIETNAMESE COCONUT CREPES RECIPE

Ingredients

Coconut crepes

1. 1 cup fine rice flour
2. 1 tsp ground turmeric
3. ½ cup coconut milk
4. 1 cup chilled soda water
5. 1 tbsp fish sauce or light soy sauce
6. Peanut or sunflower oil, for frying
7. Chilli sauce, to serve

Salad

1. 2 courgettes, spiralised or finely shredded
2. 1 cup pea or bean sprouts
3. 3 spring onions, finely sliced
4. ½ cup Vietnamese mint leaves
5. ½ cup purple basil leaves
6. Juice of 1 lime

Instruction

Coconut crepes: Put the rice flour, turmeric, coconut milk, soda water and fish or soy sauce in a large bowl and whisk to combine. Set aside for 20 minutes.

Heat a little oil in a large non-stick frying pan set over medium-high heat. Add ¼ cup of the batter to the pan and quickly swirl the pan to coat the base in a thin, even layer. Cook for 2-3 minutes on one side or until the pancake is cooked through and the edges are crisp.

Drain on paper towels and repeat with the remaining oil and batter.

Salad: Put all the salad ingredients in a bowl, season and toss well to combine. Arrange a handful of salad on each crepe and fold over to enclose. Serve with chilli sauce on the side. *(Stuff)*

STATISTICS

Table 1. Monthly Export of Coconut Shell Charcoal by Selected Countries 2020 - 2022 (In MT)

MONTH	Indonesia			Philippines			Sri Lanka		
	2020	2021	2022	2020	2021	2022	2020	2021	2022
January	38,555	38,556	38,844	6,006	5,273	7,395	757	709	930
February	42,145	36,791	38,203	7,629	6,230	10,228	935	1,045	943
March	45,015	40,634	43,683	9,887	10,382	11,694	876	882	1,050
April	35,826	42,325	45,463	4,405	8,979	9,429	917	548	1,576
May	25,769	25,660	29,854	6,449	9,457	6,739	1,554	991	1,211
June	34,619	29,232	42,901	9,182	9,182	10,517	953	412	1,475
July	39,059	26,862	37,230	9,469	9,439	9,986	1,121	733	1,398
August	36,746	28,654	41,983	854	10,071	10,438	837	489	1,670
September	36,106	40,552	40,810	8,334	13,049	10,805	1,202	484	1,378
October	40,730	31,781	46,811	8,313	9,390	9,181	1,096	547	606
November	35,387	40,391	42,999	7,077	12,311	9,010	1,048	818	659
December	36,670	51,289	47,597	7,120	10,047	8,268	742	697	1,214
TOTAL	**446,628**	**432,727**	**496,378**	**84,725**	**113,810**	**113,690**	**12,038**	**8,355**	**14,110**

Source: BPS-Statistics Indonesia, UCAP, and Coconut Development Authority, Sri Lanka

Table 2. Monthly Export of Activated Carbon by Selected Countries 2020 - 2022 (In MT)

MONTH	Indonesia			Philippines			Sri Lanka		
	2020	2021	2022	2020	2021	2022	2020	2021	2022
January	2,171	1,415	2,184	6,819	6,170	5,873	4,177	4,311	3,918
February	2,326	2,250	2,239	7,328	5,616	6,229	3,233	3,701	3,529
March	2,412	2,609	2,327	6,991	7,193	19,865	2,738	5,050	4,424
April	2,691	2,379	2,419	4,592	5,782	7,455	2,271	3,579	5,093
May	2,256	1,929	1,842	5,782	5,865	7,051	3,784	4,781	4,796
June	2,359	1,720	2,390	6,873	5,642	6,498	4,425	4,491	4,904
July	2,404	1,925	2,006	7,896	7,071	5,140	4,395	4,025	5,034
August	2,208	1,550	2,251	6,499	5,385	7,789	4,080	3,805	4,890
September	2,325	1,799	2,020	6,864	6,876	7,246	4,054	4,435	5,376
October	2,130	1,607	2,009	6,506	6,030	5,768	4,206	4,555	5,276
November	2,133	2,348	1,946	4,713	6,450	4,963	3,771	4,650	3,720
December	2,199	2,280	2,200	6,116	5,760	6,215	4,172	5,336	3,870
TOTAL	**27,614**	**23,812**	**25,832**	**76,979**	**73,840**	**90,092**	**45,306**	**52,719**	**54,830**

Source: BPS-Statistics Indonesia, UCAP, and Coconut Development Authority, Sri Lanka

Table 3. Export Destination of Activated Carbon from India and Indonesia, January-December 2022

India			Indonesia		
Country of Destination	**Volume (MT)**	**Value (US$ 000)**	**Country of Destination**	**Volume (MT)**	**Value (US$ 000)**
1. U S A	27,340	63,060	1. CHINA	5,805	7,707
2. GERMANY	10,845	22,030	2. JAPAN	5,768	6,743
3. SRI LANKA DSR	10,811	23,660	3. UNITED STATES	2,746	5,053
4. TURKEY	8,524	14,280	4. AUSTRALIA	2,352	5,991
5. KOREA RP	5,718	12,210	5. GERMANY	2,042	3,935
6. JAPAN	4,925	9,650	6. TAIWAN	1,731	3,536
7. ITALY	4,729	7,490	7. SOUTH KOREA	1,238	2,024
8. NETHERLAND	4,669	9,420	8. NETHERLANDS	645	1,254
9. BELGIUM	4,479	10,090	9. SAUDI ARABIA	527	690
10. SOUTH AFRICA	4,463	9,730	10. MEXICO	384	463
11. OTHERS	67,920	130,100	11. OTHERS	2,594	5,244
Total	**154,424**	**311,720**	**Total**	**25,832**	**42,641**

Source: BPS-Statistics Indonesia and Department of Commerce, India

Table 4. US Imports of Coconut Shell Charcoal based Activated Carbon, 2020-2022

Month	2020		2021		2022	
	Volume (MT)	**Value US$'000**	**Volume (MT)**	**Value US$'000**	**Volume (MT)**	**Value US$'000**
January	3,910	7,255	4,475	9,034	4,365	11,919
February	3,648	6,877	3,417	7,333	3,733	8,962
March	4,684	8,789	4,296	9,602	5,178	13,039
April	4,257	8,101	3,155	6,673	5,081	12,464
May	2,364	4,969	3,768	8,715	6,063	15,411
June	3,248	7,034	4,226	9,569	6,422	16,331
July	3,926	8,100	4,130	10,727	5,446	13,609
August	4,372	8,317	3,316	8,017	6,315	14,927
September	4,147	9,168	3,165	7,855	7,126	16,857
October	3,654	7,597	2,950	6,881	6,600	15,938
November	3,135	6,735	4,470	11,197	5,495	13,325
December	3,442	7,623	4,353	12,074	4,645	12,082
Total	**44,787**	**90,563**	**45,723**	**107,677**	**66,470**	**164,864**

Source: U.S. Census Bureau

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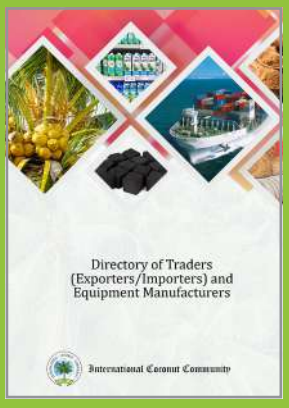

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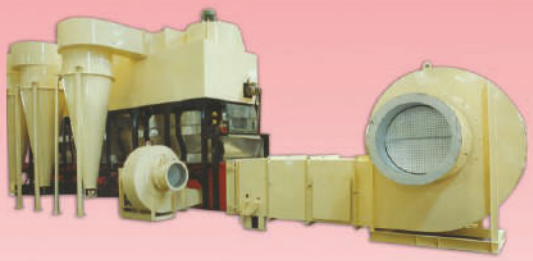

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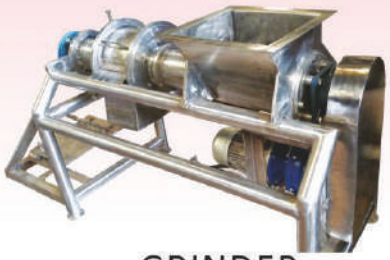

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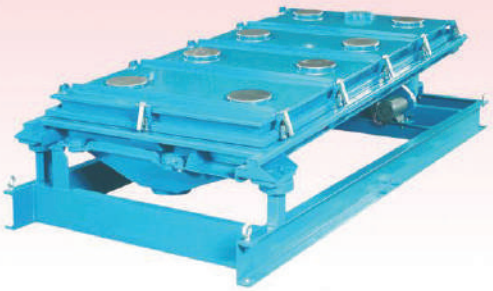
Output Capacity :
1000 to 4000 Kgs/hr.



NOVATEX SCREENER/GRADER

Output Capacity :
1000 to 1500 Kgs/hr.

DESHELLING MAHINE
Output Capacity :
250 to 300 nuts/hr.

DEHUSKING MACHINE
Output Capacity :
1200 nuts/hr.

OIL EXPELLER

RADIATOR
Extruded Fins or
Plate Fins Type

STAINLESS STEEL PERFORATED APRON TRAYS
Width: 2640mm & 3250mm

STAINLESS STEEL CHAIN

GEMTECH PROJECTS LLP.
10/C, Middleton Row, 3rd Floor, Kolkata - 700 071, India
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PRINTED MATTER

BY AIR MAIL

The ***COCOMMUNITY*** is the monthly Newsletter of the INTERNATIONAL COCONUT COMMUNITY (ICC) incorporating current news, features, statistical data, business opportunities, and market information relating to the world coconut industry.

Established in 1969, under the auspices of the United Nations Economic and Social Commision for Asia and the Pacific (UN-ESCAP), the ICC is an independent regional intergovernmental organization which consist of twenty member countries and accounts for 85-90% of the world production of coconut. The ICC member countries are: the Federated States of Micronesia, Fiji, Guyana, India, Indonesia, Jamaica, Kenya, Kiribati, Malaysia, Marshall Islands, Papua New Guinea, Phillipines, Samoa, Solomon Islands, Sri Lanka, Thailand, Timor Leste, Tonga, Vanuatu, and Vietnam.

The subscription rates for the *Cocommunity* excluding of postage are: US$50.00 per year for ICC member countries, US$60.00 for non-ICC member countries.

For subscription, please write to:

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