

# agro**riches**

VOL 3. | 20TH EDITION

## GHANA TODAY

Parliament Greenlights \$52.5 Million Loan for Agricultural Advancement

## INSIGHT AFRICA

Importance of Agricultural Insurance for Farmers in Africa

## NOTRE CHRONIQUE

L'agroéconomie: Le nexus entre agriculture, économie et durabilité

# AGENT OF CLIMATE CHANGE

CEDRIC DZELU CLIMATE CHANGE AMBASSADOR

AUGUST 2023





TIAST Group, originating from China has been in existence for over 30 years and has extended its services to West Africa with the sole purpose of adding value to the agriculture value chain and promoting the worth of the agricultural industry in Ghana. Through localization and standardization, we are devoted to adding value to the agricultural chain and boosting the agriculture industry's worth in all African countries. Our business scope includes designing, manufacturing, installation and maintenance of agricultural processing machinery. These machines are designed to process a variety of agricultural goods, including tubers like cassava and sweet potato, etc. rubber processing, fibre extraction and processing from sisal and pineapple leaf, and agricultural machinery for planting, harvesting, and other tasks. We also provide financial leasing for our agricultural processing factories through our partnership with Banks which supports up to 70-80% of the total cost of the entire project. This lease is spread out in a 5-year term of payment which is convenient after the project starts running.

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**More Food for Everyone**

When we use modern tools and techniques, farmers can grow more food. This means there will be enough for everyone to eat, and we won't have to worry about going hungry.

**Better Quality**

Industrialization helps make food cleaner and safer to eat. We can also make yummy things like juices and snacks from the fruits and vegetables we grow.

**Protecting Nature**

With modern techniques, we can take care of the environment too. We won't waste water or harm the land, and our garden will stay beautiful for a long time.

Just like we need to water a garden and give it sunshine, West Africa needs agricultural industrialization to make its agriculture grow stronger.

# WHY WEST AFRICA NEEDS AGRICULTURAL INDUSTRIALIZATION

By Prince Opoku Dogbey

Imagine a big garden with lots of fruits, vegetables, and crops growing. That's like West Africa, a beautiful place with so much potential for agriculture. But just like a garden, it needs some special care to grow even better. One way to make this happen is by doing something called "agricultural industrialization."

Agricultural industrialization means using modern tools and machines to grow and process crops and food. It's like adding magic to the garden to make it more productive and efficient.

So, why does West Africa need agricultural industrialization? Let's find out!

**Creating Jobs**

When we use machines to process food, it creates job opportunities for people. More jobs mean more families can have a good life and go to school.

**Value Addition**

When agricultural industrialization is introduced, value is being added to crop produce. Crop produce like cassava are being processed in starch. This add values to production and products from the sub-region can compete on the international market.



# Chinese Bayberry (Myrica Rubra)

By Prince Opoku Dogbey

## Origin

Chinese Bayberry, also known as yumberry or yangmei, is a fruit-bearing tree native to China. It has been cultivated for centuries in various regions of Asia, including Japan, Korea, and Southeast Asian countries. Chinese Bayberry has gained popularity for its unique flavor and numerous health benefits, making it an essential part of Asian cuisine and traditional medicine.

## Description

Chinese Bayberry trees are medium-sized, evergreen trees that can reach up to 10 meters in height. The leaves are leathery, glossy, and elliptical in shape. The fruits are small, round or oval, with a thin, red to purple skin that surrounds juicy and sweet flesh. Inside the fruit, there is a large seed, which takes up most of the fruit's central cavity. The taste of Chinese Bayberry is a combination of sweetness and tartness, providing a refreshing and delightful flavor experience.

## Health Benefits

**Rich in Antioxidants:** Chinese Bayberries are packed with antioxidants, including vitamin C, flavonoids, and polyphenols. These compounds help neutralize harmful free radicals, protecting the body's cells from oxidative damage.

**Immune System Support:** The high vitamin C content in Chinese Bayberry contributes to a robust immune system, aiding in the body's defense against infections and illnesses.

**Cardiovascular Health:** The presence of anthocyanins in Chinese Bayberries may have positive effects on heart health by reducing inflammation and improving blood vessel function, potentially lowering the risk of cardiovascular diseases.

**Skin Health:** The antioxidants in Chinese Bayberries can help protect the skin from oxidative stress and may contribute to a radiant and youthful complexion.

In conclusion, Chinese Bayberry is a flavorful and nutritious fruit with a range of health benefits. Its popularity in Asian countries reflects its cultural significance and contribution to traditional medicine. When consuming Chinese Bayberries, ensure they are ripe and obtained from reputable sources to enjoy their delicious taste and potential health advantages.



# Parliament Approves \$52.5 Million Loan for Agricultural Advancement

By Prince Opoku Dogbey



In a significant move to boost the agricultural sector and drive economic transformation, Ghana's Parliament has approved a \$52.5 million loan agreement between the government of Ghana and the International Fund for Agricultural Development (IFAD).

The loan will support the implementation of the Promoting Rural Opportunities, Sustainable Profits, and Environmental Resilience (PROSPER) project, aimed at addressing pressing challenges in the agriculture sector and promoting increased productivity.

The approved loan consists of a blended loan of \$35.175 million and a concessional loan of \$17.33 million. The facility is specifically designed to bolster the country's agricultural potential, revitalize rural communities, and foster sustainable practices.

Presenting the agreement to the House, the Majority Leader and Minister for Parliamentary Affairs, Osei Kyei-Mensah-Bonsu, highlighted agriculture's pivotal role in the government's economic transformation agenda.

He underscored the significance of various policy interventions already in place, such as Planting for Food and Jobs and Rearing for Food and Jobs, to augment food production, enhance food security, and expand agriculture.

Patrick Yaw Boamah, the Vice Chairman of the Finance Committee and Member of Parliament for Okaikwei Central, emphasized that the PROSPER project would address key impediments in the agricultural sector and pave the way for a revolution in Ghana's agriculture.

The project's primary goal is to strengthen the integration, climate resilience, and environmental sustainability of smallholder farmers and businesses in the priority value chain, focusing on the Northern and Middle Ecological belt. Additionally, it will capitalize on the increased demand created by the national agro-processing strategy.

The loan approval is expected to usher in a new era of agricultural development, providing much-needed financial support to enhance farming practices, increase productivity, and uplift rural livelihoods. By bolstering the agricultural sector, Ghana aims to position itself for sustained economic growth, job creation, and improved food security for its citizens.

**“The approved loan consists of a blended loan of \$35.175 million and a concessional loan of \$17.33 million.”**



# Nigeria set to overtake Ivory Coast and Ghana on cocoa sustainability

By Jessica Meledi

The cocoa farmer association of Nigeria has revealed that, through the collaborative efforts of stakeholders and the US government, as well as the resuscitation of commodity boards by Africa’s biggest economy, Nigeria is set to overtake Ivory Coast and Ghana in developing a sustainable cocoa supply chain.

In light of this, the US Traceability and Resilience in Agriculture and Cocoa Ecosystems of Nigeria (TRACE) project implemented by Lutheran World Relief has been approved for a \$22 million five-year development program.

The five-year program covers traceability, climate smart practices, input support to smallholder farmers, capacity building along the value chain, and exports in collaboration with Nigerian cocoa stakeholders.

The national president of the Cocoa Farmers Association of Nigeria, Adeola Adegoke, said the implementation of the TRACE project will help the country overtake the likes of Ivory Coast and Ghana in growing cocoa sustainably.

He called on the European Union to begin seeing Nigeria as a cocoa origin country, taking the bull by the horn to address the challenges of cocoa sustainability as the TRACE project kicks off with the government’s readiness to resuscitate the Nigeria Cocoa Board.

Mr. Adegoke indicated that “the cocoa commodity board was once noted for the growth of the industry and the driver of the commodity that gave the highest foreign

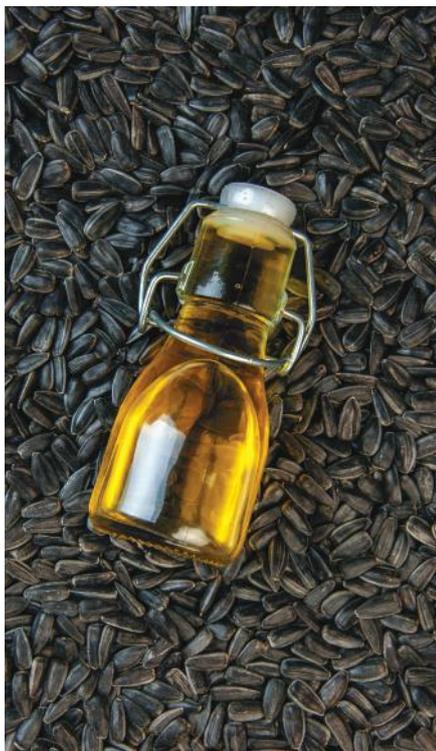
exchange earnings to the federal government, especially when Nigeria was adjudged the best producer of flavor cocoa beans in West Africa with good aroma”.

Leading cocoa producers in Côte d’Ivoire and Ghana have been reported to be making significant progress in ending deforestation as they prepare for the potential introduction of strict new EU sustainability laws. The EU has proposed to completely ban unsustainable cocoa beans from entering international markets by 2025.

Côte d’Ivoire said it had mapped 3.2 million hectares of cocoa farms, while Ghana said it had mapped 72 percent of its total cocoa growing area via its national Cocoa Management System, both covering 515,762 farmers and 845,635 farms at the time.

Nigeria is presently fourth in cocoa production behind Ivory Coast, Ghana, and Indonesia with about 2.2 million MTS, 800,000 MTS, and 739,483 MTS, respectively, while Nigeria has 340,000 MTS and is currently targeting 500,000 MTS by the year 2024.





# Agriculture Lubricants Market Expected to Reach USD 1.77 Million Kilotons by 2028

By Prince Opoku Dogbey

The global Agriculture Lubricants Market is projected to witness significant growth, with market volumes estimated to reach USD 1.77 million kilotons by 2028, according to a recent market research report titled "Agriculture Lubricants Market Report (2023-2028)."

The report predicts that the market volume, currently standing at USD 1.52 million kilotons in 2023, will experience a Compound Annual Growth Rate (CAGR) of 3.13% during the forecast period.

Agriculture-specific lubricants play a crucial role in safeguarding machinery used in the agricultural sector. They are designed to protect equipment from corrosion and oxidation, prevent contamination, and reduce overall oil usage. Additionally, these lubricants help extend the life of agricultural machinery, ensuring reliability and smooth operation regardless of terrain or weather conditions.

One of the key applications of agriculture lubricants is in engine or motor oils, which serve the dual purpose of keeping engines cool during operation and providing lubrication to internal combustion engines. Engine oils typically consist of 10% to 25% additives and 75% to 90% base oils. Their usage in agricultural machinery aims to promote smooth functioning, reduce wear and tear,

and protect against corrosion.

The Asia-Pacific region is anticipated to witness the fastest growth in the agriculture lubricants market. China, the largest consumer of lubricants globally, is a significant contributor to the surge in market demand. The country's vast population, accounting for approximately 22% of the world's total, and extensive agricultural acreage covering around 7% of the global total, drive substantial lubricant consumption.

Furthermore, India, a prominent player in the Asia-Pacific agricultural landscape, has witnessed a rise in tractor exports. In 2022, tractor exports from India surged by approximately 6%, reaching an impressive figure of around 131,850 units. India's thriving agricultural sector, responsible for around 2.1% of global tractor sales, indicates a robust demand for agriculture lubricants in the country.

The report underscores the pivotal role of agriculture lubricants in maintaining the efficiency and longevity of agricultural machinery. As the agricultural sector continues to expand, the demand for reliable and high-performing lubricants is expected to rise. Manufacturers and suppliers of agriculture lubricants are likely to witness a period of steady growth and increasing market opportunities.



# The Vital Role of Soil in Sustaining Life and Agriculture

By Jessica Meledi

**Just as a foundation is important to secure a building, healthy soil acts as a foundation for plants by supporting plant roots and keeping plants upright for growth.**

**S**oil provides ecosystem services critical for life: it acts as a water filter and a growing medium, provides habitat for billions of organisms contributing to biodiversity, and supplies most of the antibiotics we use to fight diseases. Humans use soil for different reasons, and it is also the basis of our nation's agroecosystems, which provide us with feed, food, fiber, and fuel.

Soil plays an important role in the farm ecosystem by providing nutrients essential for the growth of agricultural and horticultural crops. Fertile soil is rich in nutrients and water, highly appropriate for agriculture, and serves as the primary nutrient base for healthy crops. The nutrients that healthy soil provides facilitate the growth of food crops, which contribute to securing food systems in the agriculture sector.

Soil is a critical part of successful agriculture and is the original source of the nutrients that we use to grow crops. The nutrients transfer from the soil into plants that we eat, like maize, cassava, tomatoes, onions, and other food crops. The healthiest soils produce the most food, so it's prudent for those who handle the soil often when planting to learn and adapt measures to sustain the richness of the soil.

Some of the practices farmers can implement include growing more crops on the best soil and allowing more rest for the weaker soil. Others include rotating crops to improve diversity, keeping the soil surface covered to reduce erosion, and monitoring watering so that salts do not accumulate.

Healthy soils will lead to a more secure food supply, which results in a strong community transitioning to a buoyant agricultural economic system. Also, farmers can utilize technologies like irrigation in addition to the precise application of fertilizer to ensure that soil is conserved for sustainable food production.

# Laser Scarecrows

By Jessica Meledi

A high-tech solution employing the power of light can help farmers protect their crops from birds. Laser beams are being tested to scare birds from sweet corn fields and other crops.

A laser scarecrow system deploys a constantly moving green laser beam to frighten birds from the fields. In a March 22 webinar, researchers from the University of Rhode Island (URI) and Cornell Cooperative Extension shared research insights gained through examining use of the experimental laser scarecrow.

The open source 50-milliwatt scarecrows were tested on New York farms. The URI units cover up to nine acres. They are designed for farmers with smaller fields or fields with multiple varying elevations, operations that likely won't see economies of scale to justify larger units.

The scarecrows are also used to scare birds from blueberries and grapes. Sweet cherries are also being considered. Birds possess strong eyesight, about 10 times greater than humans', but vary by species. Birds can quickly identify and ignore deterrents like scary-eyed balloons, effigies and startling noises, reason propane canons possess limited effectiveness.

Laser light prevents birds from perching on tops of corn tassels before moving lower to feed. The laser research demonstrates birds do not appear to become acclimated to lasers and instead, become more afraid of them with repeated exposure. Research shows lasers in general work best on flocking birds.

**“A laser scarecrow system deploys a constantly moving green laser beam to frighten birds from the fields.”**



# Why Agribusiness Investments Matter!

By Prince Opoku Dogbey

**When it comes to securing a prosperous financial future, there are numerous investment opportunities available, each with its own unique potential. One area that has been increasingly shining as a beacon of promise is agribusiness investment.**

**T**he world's growing population and the ever-increasing demand for food, fuel, and fiber makes agribusiness a compelling choice for savvy investors looking to illuminate their financial future.

Agribusiness investments encompass a wide range of activities, from farming and crop production to food processing, distribution, and even renewable energy production from agricultural resources. The relevance and appeal of agribusiness investments stem from several key factors that set this sector apart.

Firstly, the global demand for food is continuously rising. As the world's population grows, so does the need for sustenance. Agribusiness investments play a vital

role in meeting this demand by supporting the growth and efficiency of agricultural production.

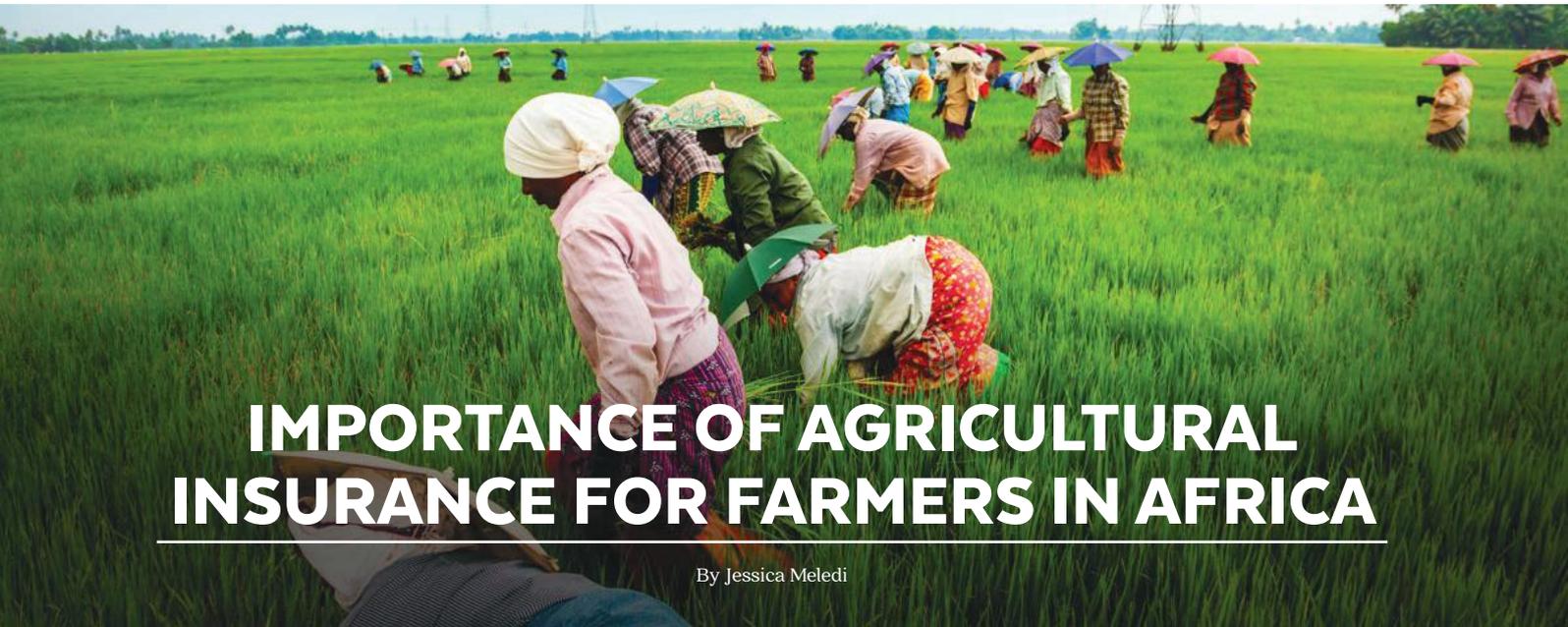
Furthermore, agribusiness investments are characterized by their stability and resilience. While financial markets can experience fluctuations and uncertainties, people will always need food and other agricultural products.

Agribusiness also offers a diversified investment opportunity. Within this sector, there are various avenues for investment, from traditional farming to high-tech agtech startups. This diversity allows investors to tailor their portfolios to align with their risk tolerance and financial goals. Whether one prefers to invest directly in farmland, support agricultural technology innovations, or participate in value-added

food processing ventures, agribusiness offers an array of options to choose from.

Moreover, agribusiness investments often have a tangible and positive impact on local communities and the environment. Sustainable farming practices, ethical food production, and support for small-scale farmers contribute to societal well-being and environmental conservation.

Lastly, agribusiness investments offer the potential for long-term capital appreciation. As the world population continues to grow and natural resources become scarcer, the value of agricultural assets is likely to increase. Investing in agribusiness can thus be a smart strategy for long-term wealth creation.



# IMPORTANCE OF AGRICULTURAL INSURANCE FOR FARMERS IN AFRICA

By Jessica Meledi

**A**griculture is crucial for African countries' economies, growth, food security, nutrition, and poverty reduction.

The ability of African countries to take advantage of these opportunities is threatened by challenges such as climate change, rising price volatility, and risks like weather conditions, pests, and diseases. Farmers struggle to repay loans, leading to declining yields and revenue. These factors threaten their ability to capitalise on opportunities.



Agricultural insurance is an essential tool for farmers to mitigate these risks and ensure food security. Agricultural insurance is not widespread in Africa, with less than 5 percent of farmers having access to agricultural insurance products.

The sector is still unstable and mostly underdeveloped due to inadequate, or rather nonexistent, insurance products. The vast majority of agricultural investments lack any sort of protection from climate dangers.

There's a need for farmers in Africa, especially small-holder farmers, to become more aware of Agricultural insurance and the fact that it is a valuable business risk management tool that provides them with financial protection against financial losses caused as a result of climate change or other disasters.

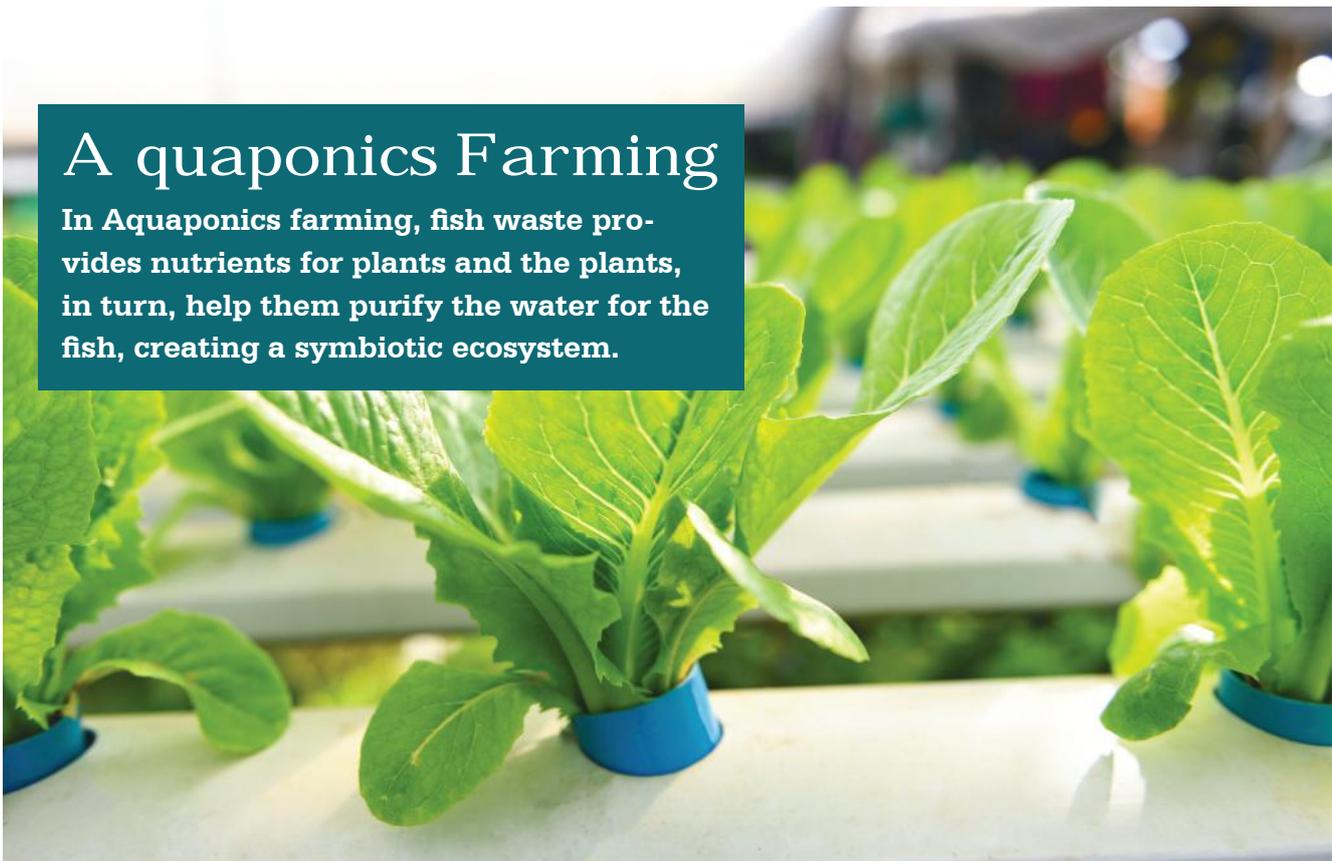
Agricultural Insurance is important because it allows farmers to plan for the future while having peace of mind that they are protected if their crop, machinery, or even labour experience any loss or damage. Research shows African farmers only accounted for 0.25% of the 178 million farmers insured by fund index insurance in 2014. Educating and encouraging insurance companies to create tailored packages for small-holder farmers could increase their adoption and interest in the policies.

Successful agricultural insurance programmes in Africa have demonstrated the insurance industry's potential to improve food security and livelihoods. Kenya's drought from 2008 to 2011 had a significant economic impact, affecting the national budget. The government adopted a National Disaster Risk Financing Plan, which targets vulnerable farmers in Kenya and currently has almost a million farmers signed on.

For agricultural insurance to be more accessible to African farmers, it must address challenges like high insurance premium costs, limited coverage, and educating more farmers to understand the benefits associated with it.

## A quaponics Farming

In Aquaponics farming, fish waste provides nutrients for plants and the plants, in turn, help them purify the water for the fish, creating a symbiotic ecosystem.



## Apple Lemonade

Apple lemonade, when made without added sugars, can be a low-calorie beverage that may aid in weight management and support overall health and wellness.



# CLIMATE CHANGE ACTION NOW!

By Prince Opoku Dogbey

**I**n a world where the consequences of climate change are becoming increasingly evident, it is vital to hear the urgent call for action from individuals who have dedicated their lives to environmental advocacy.

Cedric Dzelu, a passionate climate change ambassador and currently a Change Agent of the World YMCA, offers invaluable insights into the crucial relationship between climate change and agriculture, and emphasizes the need for immediate action to combat this global crisis.

During an insightful interview, Cedric Dzelu underscored the intricate connection between climate change and agriculture. He expressed concern over the adverse impact of extreme weather events on farming practices and how such changes threaten food security for millions around the world. According to Dzelu, rising temperatures, prolonged droughts, and erratic rainfall patterns have led to reduced crop yields and disrupted traditional farming cycles, pushing farmers into uncharted territory.

The climate change ambassador pointed out that agricultural systems must adapt to the changing climate to sustainably meet the rising global demand for food. Innovative and climate-resilient farming techniques, such as agroforestry, organic farming,



and water-efficient irrigation, offer promising solutions to mitigate the effects of climate change on agriculture. Dzelu stressed the importance of promoting these sustainable practices and supporting small-scale farmers in adopting them.

One of the key messages Cedric Dzelu conveyed during the interview was the need for urgency in addressing climate change. He spoke fervently about the detrimental consequences of inaction and how the window of opportunity to reverse some of the most severe impacts is rapidly closing. Dzelu urged governments, businesses, and individuals to act decisively and collectively to reduce greenhouse gas emissions and transition to clean energy sources.

Beyond merely adapting to the changing climate, Dzelu highlighted the significance of proactive measures to curb further global warming. He urged governments to uphold their commitments under international agreements and set ambitious targets for emission reductions. Additionally, Dzelu encouraged the private sector to invest in renewable energy technologies and implement sustainable practices in their operations.

During the interview, Dzelu also emphasized the importance of educating communities about climate change and its impacts. He stressed that awareness is the first step towards collective action, and individuals must understand the urgent need to protect the environment for future generations. By fostering a sense of responsibility and environmental stewardship, people can actively participate in climate change mitigation efforts.

Cedric Dzelu's passion for environmental conservation and climate action serves as an inspiration for everyone. As a Change Agent of the World YMCA, he works tirelessly to empower young people with knowledge and skills to address climate challenges. His dedication and commitment to this cause are a testament to the power of individual action in creating a sustainable and resilient future.

In conclusion, the interview with Cedric Dzelu highlights the indispensable link between climate change and agriculture, and how the consequences of this global crisis demand immediate attention. Urgency, he emphasized, is the key to addressing climate change effectively. By supporting sustainable agriculture, reducing emissions, and fostering awareness, we can collectively work towards a greener and more sustainable planet. The time to act is now, and through the guidance of climate change ambassadors like Cedric Dzelu, we can pave the way for a brighter and more resilient future for all.

# Cedric Dzelu

Climate Change Ambassador,

# Chinese Bayberry Smoothie

By Prince Opoku Dogbey

You can customize this smoothie recipe by adding other fruits like strawberries, raspberries, or blueberries for additional flavors and nutrients. Feel free to experiment with different ingredients to create your own unique and delicious Chinese bayberry smoothie!

## Instructions:

**Prepare the Chinese bayberries:** Wash the bayberries thoroughly under cool water and remove any stems or leaves. Cut the berries in half and remove the seeds if desired. This step is optional, but removing the seeds can make the smoothie smoother.

**Combine the ingredients:** In a blender, add the bayberries, sliced banana, plain yogurt, honey, and coconut water (or regular water).

**Blend until smooth:** Secure the blender lid and blend the ingredients on high speed until you achieve a smooth and creamy consistency. If you prefer a thicker smoothie, you can add some ice cubes and blend them along with the other ingredients.

**Taste and adjust sweetness:** Taste the smoothie and adjust the sweetness according to your preference. Add more honey if you desire a sweeter flavor.

**Serve and enjoy:** Pour the Chinese bayberry smoothie into glasses and serve immediately. Garnish with a few fresh bayberries on top if you wish.

Enjoy this refreshing and nutritious beverage as a healthy treat or a delightful breakfast option.

## Ingredients:

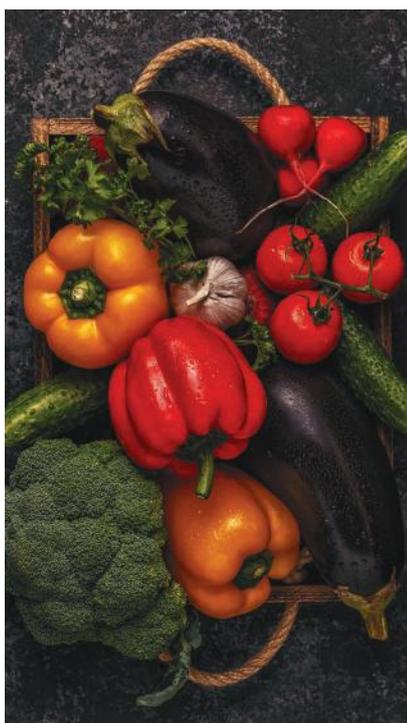
- 1 cup fresh Chinese bayberries (yumberry), washed and pitted
- 1 ripe banana, peeled and sliced
- 1/2 cup plain yogurt (Greek yogurt or dairy-free yogurt for a vegan option)
- 1 tablespoon honey (adjust to taste)
- 1/2 cup coconut water or regular water
- Ice cubes (optional)





# The Seed Industry and its contribution to Agriculture

By Jessica Meledi



Seed is the single most important input in crop production, and it is usually classified into four categories: breeder seeds, nucleus seeds, foundation seeds, and certified seeds.

Seed issues have become increasingly complex due to increased stakeholder involvement, including government policy-makers, seed companies, research professionals, marketing specialists, farmers, and investors.

Seed Industry means the entire chain of linked stages that start with breeding and crop improvement, through seed multiplication, processing, and certification, and end with seed distribution.

As a key agricultural input, seeds play a fundamental role in meeting the triple challenge of improving food security and nutrition, supporting the livelihoods of farmers and rural communities, and contributing to sustainable resource use and climate change adaptation and mitigation.

Seed is a cost-efficient and crucial factor in increasing agricultural production and productivity, accounting for 20-25% of productivity. It is, therefore, important that quality seeds are made available to the farmers of the country.

The accessibility of high-quality seed is vital to supporting the livelihoods and resilience of farmers; therefore, advocates advocate for government policies that enable the availability of a diversity of crops and varieties for growers, including those developed using the latest technologies.

The seed sector directly influences three dimensions of food security and nutrition, which are food availability, access, and stability. The seed sector contributes to food security and nutrition through productivity growth, improved resilience, and quality improvement, allowing a greater availability of nutritious food at lower prices.

As the seed industry is positioned at the beginning of the food value chain, it can substantially improve food and nutrition security for our growing global population in the countries that need it most. A series of small changes starting at the industry level can, over time, contribute to the transformation of our global food and agriculture systems to ensure a sustainable future for everyone.



## Dearest Lover

White lilies, red roses  
Sunflowers, twinflower  
Were my superpower

While I tilled the land  
With my hoe at hand  
I thought of every passing day

And what to say on that day  
When I see you face to face  
When my eyes meet your gaze

I have nothing to offer  
As I am a simple farmer  
All I have is a flower

Shall it be a rose  
Or a lily?

— Poem by Nana Ama Oforiwaa Antwi

# 5 Keys to Living a Healthy Life Through Diet

By Prince Opoku Dogbey

In the pursuit of a healthy and fulfilling life, maintaining a balanced and nutritious diet plays a pivotal role. What we eat directly impacts our physical well-being, energy levels, mental clarity, and overall quality of life. Adopting healthy eating habits can be empowering and transformative, enabling us to enjoy life to the fullest. Here are five essential keys to living a healthy life through diet:

**Embrace a Balanced Diet:** A balanced diet is the foundation of good health. It involves consuming a variety of foods from all major food groups, including fruits, vegetables, whole grains, lean proteins, and healthy fats.

**Choose Whole Foods:** Opt for whole foods over processed and refined alternatives. Whole foods, such as fruits, vegetables, nuts, seeds, and whole grains, retain their natural nutrients and are free from additives and preservatives. They provide your body with vital fiber, antioxidants, and healthy fats, promoting better digestion, cardiovascular health, and improved immunity.

**Practice Portion Control:** Portion control is crucial for maintaining a healthy weight and preventing overeating. Be mindful of serving sizes and avoid supersized portions. Eat slowly and pay attention to your body's hunger cues, stopping when you feel comfortably satisfied.

**Stay Hydrated:** Water is essential for sustaining life and supporting overall health. Adequate hydration is key to maintaining bodily functions, regulating body temperature, and flushing out toxins. Aim to drink plenty of water throughout the day and reduce sugary beverages.

**Moderation, Not Deprivation:** Adopting a healthy diet doesn't mean completely eliminating indulgences or treats. Rather, practice moderation and balance in your food choices. Enjoy occasional treats mindfully, savoring the flavors without guilt. Strive for an 80/20 approach, where 80% of your diet consists of nutritious, wholesome foods, and 20% allows for occasional indulgences.

Incorporating these five keys into your lifestyle can contribute to long-term health and well-being. Remember that healthy eating is not a one-size-fits-all approach.



# TODAY'S TIPS

One innovative farming technique that can be applied on the farm is Agroforestry.

Agroforestry involves the deliberate integration of trees and crops on the same piece of land, creating a multi-layered farming system.

There are several different types of agroforestry systems, including alley cropping, where rows of trees or shrubs are planted between rows of crops, and silvopastoral systems, where trees and livestock are managed together on the same land.

Agroforestry improves soil health and fertility by stabilizing soil, preventing erosion, and enhancing structure through tree roots and leaf litter.

Agroforestry also enhances the farm's resilience to climate change. With diverse crops and tree species, farmers can reduce their dependence on a single crop. Furthermore, agroforestry can foster community development and improve social cohesion by involving local communities in the management and utilization of the land, creating shared benefits and a sense of ownership.

In conclusion, agroforestry is a versatile and sustainable farming technique that presents a multitude of advantages, from soil improvement and biodiversity conservation to climate resilience and economic benefits. By implementing agroforestry practices, farmers can move towards a more environmentally friendly and economically viable approach to agriculture.



# Simple steps to sustaining your farm

By Prince Opoku Dogbey

**O**wning and operating a farm is not just a profession; it's a way of life. Whether you have a small family farm or a larger agricultural enterprise, there are always opportunities to improve and take your farm to new heights. By implementing some straightforward yet effective strategies, you can transform your farm into a better version that yields greater productivity, sustainability, and satisfaction.

## Embrace Sustainable Practices:

Sustainability is the key to a successful and resilient farm. Consider incorporating sustainable farming practices, such as crop rotation, cover cropping, and

natural pest management. These practices not only promote soil health but also reduce the need for chemical inputs, making your farm eco-friendly and economically viable in the long run.

## Invest in Modern Technology:

Modern technology can be a game-changer for your farm's productivity. Embrace agricultural innovations like precision farming, automated irrigation systems, and data-driven decision-making tools. These technologies can optimize resource usage, increase yields, and minimize wastage, all contributing to a better version of your farm.

## Focus on Education and Training:

Knowledge is power in agriculture. Keep yourself and your farm staff informed about the latest farming practices, industry trends, and innovations. Participate in workshops, webinars, and networking events to exchange ideas and learn from fellow farmers. Empowering yourself with knowledge can lead to better decision-making and increased success.

## Enhance Marketing and Distribution:

In today's digital age, an effective marketing and distribution strategy is essential for reaching consumers and expanding your farm's market reach. Consider establishing a strong online presence through a website or social media platforms. Explore local farmers' markets, community-supported agriculture (CSA) programs, and direct-to-consumer sales to connect with your customers directly.

In conclusion, transforming your farm into a better version is within your grasp. By implementing these simple yet impactful steps, you can optimize productivity, promote sustainability, and create a fulfilling and successful farm enterprise.



# L'agroéconomie : Le nexus entre agriculture, économie et durabilité

Par Yosua Domedjui

L'agroéconomie émerge comme une discipline cruciale dans un monde où les défis de la sécurité alimentaire, de la durabilité environnementale et du développement économique interagissent de manière complexe. Cette discipline interdisciplinaire explore les interactions entre l'agriculture et l'économie, en mettant l'accent sur la manière dont les décisions prises dans le secteur agricole influencent la production, la distribution et la consommation des produits agricoles.

Au cœur de l'agroéconomie se trouvent les agriculteurs, les entreprises agroalimentaires et les gouvernements, qui prennent des décisions cruciales pour répondre à la demande croissante en nourriture tout en gérant les ressources limitées. L'agroéconomie étudie comment les facteurs économiques tels que les prix des produits agricoles, les coûts de production, les politiques agricoles et les mécanismes de marché façonnent ces décisions.

L'une des questions clés de l'agroéconomie est la recherche d'un équilibre entre la rentabilité économique et la durabilité environnementale. Les choix liés aux cultures, aux pratiques agricoles et à l'utilisation des terres ont un impact direct sur les écosystèmes et les ressources naturelles. L'agroéconomie évalue comment optimiser la production tout en minimisant les externalités négatives, telles que la déforestation, la pollution et l'épuisement des sols.

L'agroéconomie joue également un rôle crucial dans la compréhension des défis mondiaux tels que le changement climatique et la volatilité des prix alimentaires. Elle explore comment les modèles climatiques et les événements météorologiques extrêmes affectent la production agricole et comment les politiques économiques peuvent atténuer les conséquences de ces chocs.

En outre, l'agroéconomie s'intéresse à la chaîne de valeur agricole, de la production à la consommation. Elle analyse les défis de la commercialisation, de la distribution, de la transformation et du commerce international des produits agricoles. Cette perspective éclaire la manière dont les chaînes d'approvisionnement peuvent être renforcées pour assurer une meilleure répartition des bénéfices et une meilleure qualité des produits.

L'agroéconomie est en conclusion, une discipline essentielle pour répondre aux défis complexes et interconnectés auxquels est confrontée l'agriculture moderne. En équilibrant les besoins économiques avec les impératifs environnementaux, elle ouvre la voie à une agriculture plus durable, à une sécurité alimentaire renforcée et à des communautés rurales prospères.



# La Prévision céréalière à l'horizon 2035

Par Yosua Domedjui

**A** l'horizon 2035, 1,2 million d'hectares (ha) de terres seront réservés en Tunisie pour le développement de la filière céréalière, dont 550 000 ha pour le blé dur, 500 000 ha pour l'orge, 100 000 ha pour le blé tendre et 50 000 ha pour le triticale.

Le ministère de l'Agriculture, des Ressources hydrauliques et de la Pêche estime que la production nationale de la Tunisie satisfait 60 à 70 % de ses besoins en blé dur et 5 % de ses besoins en blé tendre. Le document du plan a été publié ce dimanche dans la presse locale.

Les importations de céréales représentent 50% de l'ensemble des importations alimentaires, ce qui explique l'ampleur du déficit commercial alimentaire du pays.

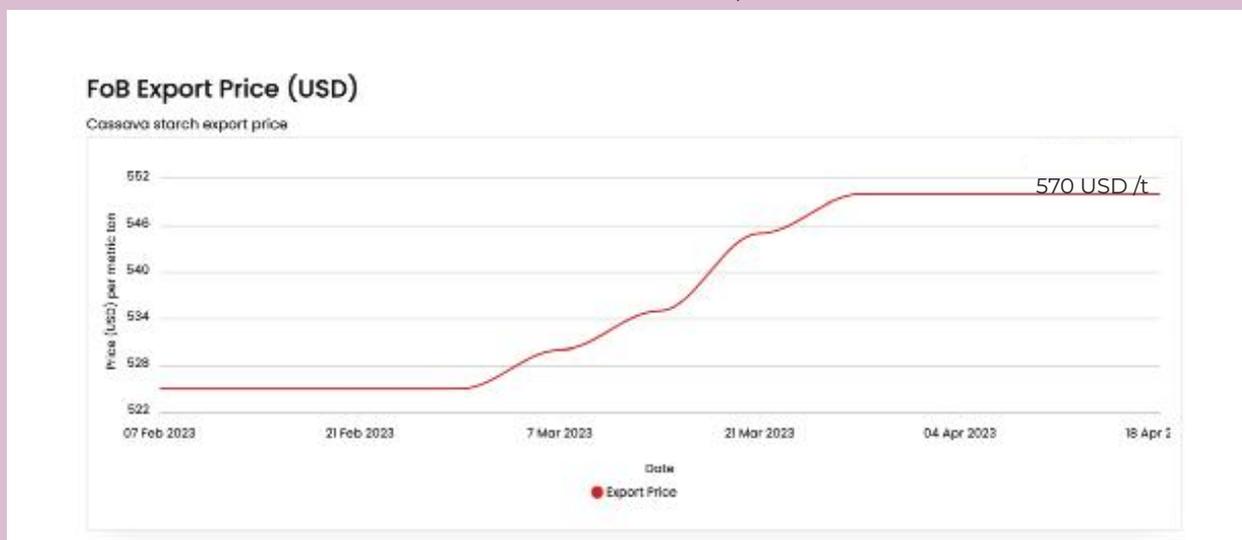
Le même document indique que la Tunisie souhaite augmenter sa production nationale de céréales et son taux de couverture pour atteindre un minimum de 8 millions de quintaux et un maximum de 25 millions.

En Tunisie, environ 250 000 agriculteurs dépendent de l'industrie céréalière pour leurs revenus, et au moins 50 % de la main-d'œuvre agricole du pays est employée dans cette industrie. Chaque année, elle travaille 2,5 millions de jours.

# Market Analysis of Cassava Starch In Thailand

The market prices of cassava starch have reduced slightly over the last month. The price ranges from 500-550 US dollars/ton (3,627.80 yuan /ton). This week, the market price of cassava starch in Thailand's tapioca starch quotation is FOB (Bangkok) 495 US dollars/ton (3,788.46 yuan/ton). The starch prices in the domestic cassava starch market are stable. In Thailand, the raw material supply of fresh cassava is stable. The average starch leavening of cassava starch is between 24-28 percent. Thailand is relatively stable, the open factories remain high, and the starch output continues to increase. The speed of cassava starch clearance is still low, and the quotations of traders are slightly confused.

● Thailand Cassava Starch price



## Price Factors

**Quality of cassava root:** Factory owners demand cassava with high starch content for production. Higher starch content would receive a higher price than the lower one. The price WWW offered by the collector is dependent on the quality of the cassava root, specifically, the starch content.

**Cost of Labour:** Total labour cost including farm labour for the cultivation and harvesting of cassava. The cost of labour during the harvesting period is high as compared to cultivation therefore the cost of harvesting directly affects pricing.

**Harvest Yield:** There is a high correlation between harvest yield and the price of cassava. The price of cassava is lower when there is a low yield. The lowest prices in June and July can be explained in a similar way but the opposite end. It is noted that the abundance of cassava roots drives the prices down.

**Handling and Logistics:** The storage and shipping costs from producing areas to importing countries are great determinants of cassava prices. When the shipping and transportation cost of cassava to consumers and industries are high, it affects the retail price of cassava. Cassava farmers bring their harvest to the collectors, where they are responsible for absorbing the cost of transportation from farm to collecting fields.

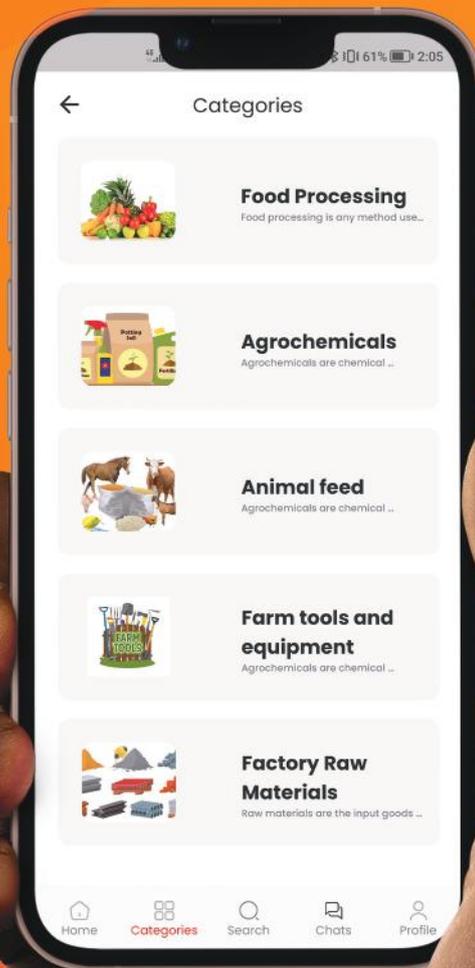
**Harvesting time:** The harvesting period is a great determinant for the price of cassava. The abundance and scarcity of cassava affect the price. The prices of fresh cassava roots often rise in November and December of every year as cassava is easily harvested during the rainy season. During the harvesting season, the prices are relatively high due to the limited supply.



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