



CRIN Herald

A MONTHLY PUBLICATION OF COCOA RESEARCH INSTITUTE OF NIGERIA (CRIN), IBADAN.

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Governing Board Chairman Visits CRIN



The Cocoa Research Institute of Nigeria (CRIN) played host to the Chairman of its Governing Board, Chief Yemi Sanusi, on Wednesday, September 3, 2025. The visit was a significant moment of engagement and reflection, aimed at reinforcing the Institute's commitment to good governance, research excellence, and institutional growth. Chief Yemi Sanusi was warmly received by the Executive Director, Dr. Patrick Adebola, alongside members of the management team and staff.



Dr. Patrick Adebola, in his welcome remarks, expressed appreciation for the visit and acknowledged the Governing Board Chairman's unwavering commitment to CRIN's mission. "This visit is a demonstration of leadership that listens and engages," Dr. Adebola stated. "We remain committed to

delivering research solutions that transform Nigeria's agricultural landscape, particularly in revitalizing cocoa production and supporting farmers through innovation."

In his address, Chief Yemi Sanusi commended the leadership of Dr. Adebola



and praised the dedication of the Institute's staff in advancing agricultural research across CRIN's mandate crops—cocoa, kola, coffee, cashew, and tea.

"Good governance is not optional—it is essential for progress," Chief Sanusi emphasized.

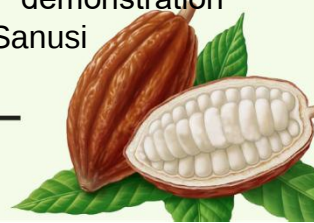
"Institutions, like

CRIN, are key to Nigeria's economic diversification, and we must ensure that transparency, accountability, and strategic development remain central to our operations."

During the interactive session with staff, the Chairman listened attentively to concerns and contributions from various departments. He encouraged open dialogue and assured the staff of the Governing Board's support in addressing welfare, infrastructure, and funding challenges that may affect productivity.



The visit also featured a guided tour of CRIN's research facilities, demonstration plots, and laboratories. Chief Sanusi





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commended the scientific progress made and pledged the Governing Board's continued collaboration in scaling up the Institute's impact both nationally and internationally.



Cross section of staff

CRIN Holds Monthly Seminar

The 7th in the series of the 2025 monthly seminar was held on September 8, 2025 at the Lawrence Opeke Conference Hall of the Institute. The program featured presentations from Dr. M.O. Okeniyi, an Assistant Director from Plant Pathology Section and Mr. M.A. Daniel, Chief Research Officer from Soil and Plant Nutrition Division, while Dr. S.B. Orisajo, Director and Cocoa Programme Leader anchored the programme.



Distribution and management of plant-parasitic nematodes in selected old and moribund cocoa farms in South Western Nigeria - M. O. Okeniyi



The study was carried out to examine the distribution and evaluate effects of nematode management strategies. Initial sampling was conducted to determine the types, frequency and population of plant-parasitic nematodes associated with old cacao plantation. Ten genera



of plant-parasitic nematodes were recovered in Ibadan which included *Meloidogyne* spp., *Pratylenchus* spp., *Helicotylenchus* spp., *Paralongidorus* spp., *Eutylenchus* spp., *Scutellonema* spp., *Hemicyclophora* spp., *Xiphinema* spp., *Longidorus* spp. and *Anguillulina* spp. The most widely distributed genus in Ibadan was *Meloidogyne* spp. (67%), followed by *Anguillulina* spp. (50%) and *Paralongidorus* spp. (33%).

Thirteen genera of plant-parasitic nematodes were encountered in Owena, which included *Meloidogyne* spp., *Pratylenchus* spp., *Helicotylenchus* spp., *Paralongidorus* spp., *Eutylenchus* spp., *Scutellonema* spp., *Hemicyclophora* spp., *Xiphinema* spp., *Longidorus* spp., *Anguillulina* spp., *Psilenchus* spp., *Tetylenchus* spp. and *Heterodera* spp. *Meloidogyne* spp. was the most predominant in Owena soil with a frequency rating of 75%, this was followed by *Hemicyclophora* spp. (33%) and *Eutylenchus* spp. (25%).

To evaluate the effect of nematode management on nematode population there were seven treatments (CPH, CPH+NL(80:20), CPH+NL(90:10), CPH+Carbofuran (C), CPH+NL(80:20)+C, CPH+(90:10)+C, Carbofuran only and control) with four applications. The application of organic amendment significantly ($P=0.05$) reduced the population of nematode when compared to carbofuran (as comparison) and the untreated (control). Nematode management inclusion in the rehabilitation technique programme in old and moribund cocoa plantation will not only bring nematode population below the threshold but also increase both the yield and income of farmer.

Key words: cocoa pod husk, neem, nematodes, frequency, population.

Effect of organic fertilizers on *coffea canephora* (pierre ex. Froehner I.) Seedlings dry matter yield and nutrient uptake – M.A. Daniel



The effect of three organic fertilizers namely; *Chromoleana odorata* (Siam weed), *Pennisetum purpureum* (Napier grass) and cow dung were evaluated on the growth, shoot. root nutrient content and dry matter yield of *Coffea canephora* seedlings at

the rate of 0.5 and 10tha¹.

The results showed that, application of each of the organic fertilizers singly or combined significantly ($P \leq 0.05$) improved the nutrient content of *Coffea canephora* seedlings. Application of *Chromoleana odorata* alone or in combination with either the two organic fertilizers improved the growth and nutrient content of the shoot most when applied at 5t ha¹.

The P content of the shoot increased between 0.23 – 0.24% and the K content between 0.25 – 0.27%. The exchangeable cations showed considerable increase Ca 0.26 – 0.27% and Mg 0.25 – 0.26%. The nutrient content of the root showed a similar trend of increase but most significant with seedlings that received *Chromoleana odorata* organic fertilize based treatments.

Organic fertilizers, therefore, can serve as good nutrient source supplement for coffee seedling production in Nigeria and the humid tropic.

Key words: *Chromoleana odorata* (Siam weed), *Pennisetum purpureum* (Napier grass)





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Cross section of seminar participants

CRIN Scientists Now Cashew Master Trainers

The African Cashew Alliance (ACA), together with the Market Oriented Value Chain for Jobs and growth in the ECOWAS region (MOVE), European Union (EU), Organization

of African, Caribbean and Pacific States (OACPS), the Conseil du Coton et de l'Anacarde (CCA), the Ghana Private Sector Competitiveness Program II, and the Consultative International Cashew Council (CICC) has awarded six CRIN scientists with Cashew Master Trainers. The scientists, Drs. Uche Asogwa, Osita Ibe, Akintobi Ogunsowo, Mr. Babatunde Olaitan Paul, Aremu-Dele Olufemi and Mrs. Oladigbolu Yetunde Olalade received the award during the third session, Edition 19 of the Master Training Program (MTP) for Cashew Value Chain Promotion that was held from 25th to 29th August, 2025 in Yamoussoukro, Cote d'Ivoire. The program attracted 98 participants from eight West African countries with nine Nigerians in attendance.



Awardees from Nigeria with the award presenter, Mary Adzanyo, Deputy Director GIZ/MOVE



Field trip to cashew processing factory, Yamoussoukro, Cote d'Ivoire



Health News

Muscle Cramps – Mrs. Bosede Famaye



Muscle cramps are sudden, involuntary contractions that occur in one or more muscles. These contractions are often painful and can affect muscle groups. Muscles affected by cramps are often those in the leg, the back of your thigh, and the front

of thigh. One may also experience cramps in the arms, hands and feet. The intense pain of a cramp can awaken one at night or make it difficult to walk. A sudden, sharp pain, lasting from a few seconds to 15 minutes is the most common symptom of a muscle cramp. In some cases, a bulging lump of muscle beneath the skin can accompany a cramp as well.

Muscle cramps have several causes.

- ✚ Some cramps result from overuse of the muscles. This typically occurs while one is exercising.
- ✚ Muscle injuries and dehydration can also trigger cramps. Dehydration is the excessive loss of fluids in the body.
- ✚ Low levels of any of the following minerals that contribute to healthy muscle function may also cause muscle cramps: Calcium, Potassium, Sodium, Magnesium.
- ✚ Low blood supply to the legs and feet can cause cramping in those areas when one exercise, walk, or participate in physical activities.
- ✚ In some cases, a medical condition

can cause muscle cramps. These conditions include:

- Spinal nerve compression, which can cause muscle cramps in the legs when walking or standing.
- Pregnancy
- Kidney failure
- Hypothyroidism, or low thyroid gland function.

At other times, the cause of muscle cramps is unknown.

Diagnosis

Muscle cramps are usually harmless and do not require medical attention. However, one should see a doctor if the muscle cramps are severe, don't improve with stretching, or persist for a long time. This could be a sign of an underlying medical condition. These would entail:

- ✚ Physical examination by the doctor.
- ✚ Blood test to check the levels of potassium and calcium in the blood.
- ✚ Kidney and thyroid function test.
- ✚ Pregnancy test.
- ✚ Electromyography (EMG). This is a test that measures muscle activity and checks for muscle abnormalities.
- ✚ An MRI may also be a helpful test, this is an imaging tool that creates a picture of the spinal cord.
- ✚ Myelogram, or Myelography which is another imaging study might also be helpful.

Treatment options

One can apply a hot or cold compress





to the sore muscles at the first sign of a spasm to ease the pain of muscle cramps. One can also use a heating pad or Ice. Stretching the affected muscle can also alleviate the pain of muscle cramps. Supplements may also be recommended if calcium or potassium levels are low.

Preventing muscle cramps

- ✚ The simplest way to prevent muscle cramps is to avoid or limit the exercises that strain the muscles and cause cramps.
- ✚ One can also stretch or warm up before participating in sports and exercising.
- ✚ One should not exercise right after eating.
- ✚ The intake of food and drink that contains caffeine, such as coffee and chocolate should be lowered.
- ✚ One should drink enough liquid to avoid dehydration.
- ✚ There should be increase in calcium and potassium intake naturally by drinking milk, orange juice and eating bananas.
- ✚ The doctor should be consulted about taking a vitamin supplement to ensure that the body receives the necessary supply of nutrients and minerals.

Market Survey

Price Report for September 2025

This report presents an overview of cocoa prices across selected Nigerian states for September 2025. Data were obtained from key cocoa-producing areas within the surveyed states, and state-level averages were computed accordingly. There was a fall

in cocoa prices in Cross River, Kwara and Osun States, while the price remained unchanged in the other states compared with the previous month.

The steepest fall in prices was experienced in Osun State, where prices fell by over 10%. Abia State reported the lowest average price at ₦7,750 per kilogram, whereas Oyo and Osun States recorded the highest at ₦10,250 per kilogram in September.

These price variations reflect underlying supply and demand dynamics in the market during the reporting period.

It is also noteworthy that cashew is currently in its off-season, and no price data were available for this commodity in the current month.

Cocoa cost per kg (local price)			
September, 2025			
State	Minimum Price (₦)	Maximum Price (₦)	Average Price (₦)
Abia	7500	8000	7750
Cross River	9000	10000	9500
Kogi	10000	10000	10000
Kwara	9500	10500	10000
Ondo	10000	10000	10000
Osun	10000	10500	10250
Oyo	10000	10500	10250

Source: CRIN Survey, 2025
Economics and Statistics Sections





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Staff of the Month



Mrs Baoku Funmilayo Helen was born on 18th June, 1966 at Ikirun, Osun State. She attended St Paul Primary School, Ikirun (1972-1979) and obtained her First School Leaving Certificate (FSLC). In furtherance of her post primary

education, She proceeded to Titcombe College, Egbe, Kogi State.(1979-1984) and obtained the West African School Certificate (WASC). Subsequently, she attended School of Midwifery Egbe (1986-1989) and qualified as Registered Midwife and Oyo State School of Nursing, Eleyele, Ibadan (1997-1998) as Registered Nurse. To satisfy her craving for higher qualification, she bagged Bachelor of Nursing Science (2012-2015) at the LAUTECH University of Technology, Ogbomoso. She was employed by the Institute on September 2003 as a Staff Nurse/Midwife and has risen to the post of Assistant Director of Nursing Services. She is happily married to Mr Baoku and they are blessed with Children.

held notable positions in the Institute. He has acted in various leadership capacities and committees – Budget Committee, Senior Staff Promotion Committee, Conflict Reconciliation Committee among several others.

Dr Agbeniyi obtained his BSc. (Hons) in Botany in 1989 and MSc. Plant Pathology, Department of Crop Protection and Environmental Biology, University of Ibadan in 1992 and PhD Mycology from the Federal University of Agriculture, Abeokuta in 2004.



He has attracted several research funds from donors. He has also completed the ECA/CAOBISCO Project “Safe Cocoa, sustainable production: a concerted programme by the cocoa and chocolate industries to understand and address market changes regarding pesticide acceptability. He conducted Participatory Farmers Field Research on biocontrol of *Phytophthora* pod rot in Nigeria; and completed CRIN/WCF Project, “Soil fertility management for smallholder cocoa in Nigeria. He again completed CRIN/CABI/DFID project “Rational pesticides use on cocoa”.

Dr. Remi Agbeniyi Passed Unto Glory

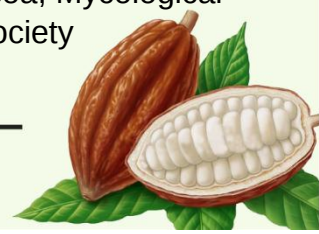


The Institute has lost her Director of Research Operations, Dr. Sunday Oluremi Agbeniyi. The incident occurred on the 24th September, 2025 after a brief illness. The erudite scholar before his demise was a Plant

Pathologist and seasoned scientist who have

Dr Agbeniyi has won several scholarships and prizes, among which are USDA, Certificate of Achievement in Cocoa Research, USDA, Washington DC, USA; World Cocoa Foundation (WCF) Challenge Grants Winner and Grant Winner for Biocontrol of Cocoa black pod disease in Nigeria.

He was a member of International Committee on Pests and Diseases of Cocoa, Mycological Society of Nigeria, Nigerian Society



for Plant Protection, Science Association of Nigeria, Ecological Society of Nigeria, Botanical Society of Nigeria, Agricultural Society of Nigeria and a Fellow of Horticultural Society of Nigeria.

He added to his feathers several publications in learned journals, books and proceedings with various international recognitions in research activities. He has taught at the Department of Microbiology, Oduduwa University, Ipetumodu. Ile-Ife on sabbatical appointment and adjunct lecturer, Ondo State University of Science and Technology, Okitipupa, Ondo State. He supervised final year students B.Sc. (Hons) Microbiology projects and was co-supervisor of PhD students.



Dr. Agbeniyi's cheerful and calm mien would be greatly missed by the Institute. He was happily married with children.

October Birthday Galore

Hearty birthday celebrations to the members of staff that will be celebrating their birthdays this month. Wishing you all the very best in your life endeavours. Congratulations!



Aderinlewo Shulamite O.	01-October
Aribido Mary M.	01-October
Husein Yahaya	01-October
Meliga Kashim	01-October
Olukotun Olubunmi S.	01-October
Raji Ibrahim	01-October
Adetunji Titus A.	02-October
Agbebaku Endurance E.	03-October
Olatunji Comfort A.	03-October
Arumeni Christian I.	04-October
Ajayi Yemisi A.	05-October
Alhassan Gloria	05-October
Ayidu Sunday	05-October
Etuke Charles E.	05-October
Olutade Bamidele	05-October
Adeogun Moruf A.	06-October





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Onifade Elizabeth O.	06-October	Owoyemi Julius	18-October
Atanda Kolawole O.	07-October	Oyepeju Tunde	18-October
Oladokun Johnson O.	07-October	Oguntona Victor O.	19-October
Adeloju Kayode	09-October	Raheem Waheed O.	20-October
Olayiwola Adekunle M.	09-October	Nmeregini Ursula N.	21-October
Emmanuel Felicia O.	10-October	Oladejo Gbemisola A.	21-October
Kunnuola Arinola	10-October	Babafemi Kolawole A.	21-October
Okoh Mercy	10-October	Onipe Siyaka J.	21-October
Oniosun Basiru	10-October	Adesina Motunrayo	23-October
Egesi Nwabueze	11-October	Agboluaje Aduragbemi	24-October
Omotere Ayomibo T.	11-October	Falusi Loveth	24-October
Fowosere Elizabeth F.	12-October	Yinusa Sakiru A.	24-October
Gidiga Johnson O.	13-October	Mokwunye Francis C.	25-October
Osungbade Abolanle A.	13-October	Onigbinde Adeniyi J.	25-October
Tijani Rashidat R.	13-October	Gbadamosi Taye	26-October
Oladebo Kemi	14-October	Odusote Ayodele A.	26-October
Titiloye Eruke	14-October	Ogunlade Moses O.	26-October
Adebayo Ayoade	15-October	Ejikeme Paulina O.	27-October
Akinrinola Olawale A.	15-October	Laoye Fiyinfoluwa	27-October
Tijani Fatai A.	15-October	Adeyemi Adewunmi E.	28-October
Oladunjoye Gboyega	15-October	Adewumi Ibrahim	29-October
Umontia Mercy	15-October	Ogar Okparaku Ekok	29-October
Oladele Olayemi O.	16-October	Oghenejabor Rita	29-October
Bolaji Oyedele	17-October	Oladunmoye Oladimeji A.	30-October
Ekereobong Sunday	17-October		
Makinde Kehinde O.	17-October		
Okedara Titilope	17-October		
Oyefi Jolade A.	17-October		
Titiloye Isaac S.	17-October		
Adewusi Eunice M.	18-October		
Aleburu Juliana O.	18-October		





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