ANNUAL REPORT

OF THE

COCOA RESEARCH INSTITUTE OF NIGERIA, IBADAN.

2009

TABLE OF CONTENTS

PRINCIPAL ADMINISTRATION AND RESEARCH STAFF
LIST AS AT 31 DECEMBER 2009

Internal Management Committee

S/N	DESIGNATION	NAME	QUALIFICATION
1	Executive Director	Prof. G.O. Iremiren	B.Sc, M.Sc, Ph.D
2	Director (R)	Dr. O Olubamiwa	B.Sc, M.Sc, Ph.D
3	Director (FSR & E)	Dr. E.O. Aigbekaen	B.Sc, M.Sc, Ph.D
4	Director (PB & T)	Dr. O.A. Fademi	B.Sc, M.Sc, Ph.D
5	Assistant Director (A & S)	Mr. J.O. Babafemi	B.Sc, MPA, MNIM, ACIPM
6	Head Plantations & Substation	Dr. O. Oduwole	B.Sc, M.Sc, Ph.D
7	Assistant Director (F & A)	Mr. O.S. Adefaka	B.Sc, MBA, ACMA
8	Assistant Director (LID)	Mr. Fagbami	B.Sc, MLS
9	Assistant Chief Accountant	Mr. K.M. Fabowale	OND, HND, PGD, ACMA
10	Snr. Maintenance Engineer	Engr. A.T. Bakare	B.ENG, M.Sc.

PLANT PATHOLOGY

1	Dr (Mrs) L.N. Dongo	B.Sc, M.Sc, Ph.D
2	Dr. S.O. Agbeniyi	B.Sc., M.Phil, Ph,D
3	Dr. A.R. Adedeji	B.Sc, M.Sc, Ph.D
4	Mr. A.H. Otunoye	B.Sc,
5	Mr. S. Orisajo	B.Sc, M.Sc.
6	Mr. M.O. Okeniyi	B.Agric
7	Mr. D.O. Adeniyi	B.Sc, M.Sc.

PLANT BREEDING

1	Dr. O.A. Fademi	B.Sc, M.Sc, Ph.D
2	Dr. S.S. Omolaja	B.Sc., M.Phil, Ph,D
3	Dr. O.M. Aliyu	B.Sc, M.Sc, Ph.D
4	Dr. P.O. Aikpokpodion	B.Sc, M.Sc., Ph.D
5	Mrs. A.A. Muyiwa	B.Sc, M.Sc.
6	Mr. K.E. Dada	B.Sc.
7	Mr. B.D. Adewale	B.Sc, M.Sc.
8	Mrs. Y.T. Adeigbe	B.Sc, M.Sc.
9	Mr. O.O. Adenuga	B.Agric, M.Agric

AGRONOMY

1	Dr. A.O. Famaye	B.Sc, M.Sc, Ph.D
2	Mrs. E.A. Adeyemi	B.Sc., M.Sc.
3	Dr. L.A. Hammed	B.Sc, M.Sc, Ph.D
4	Mr. A. Oloyede	B.Sc, M.Sc.
5	Mr. K.O. Ayegboyin	B.Sc, M.Sc.
6	Mr. K.B. Adejobi	B.Sc, M.Sc.

ENTOMOLOGY

1	Dr. (Mrs.) F.A. Okelana	B.Sc, M.Sc, Ph.D
2	Mr. E.U. Asogwa	B.Sc., M.Sc.
3	Mr. J.C. Anikwe	B.Sc, M.Sc,
4	Mrs. I.U. Mokwunye	B.Sc, M.Sc.
5	Mr. A.V. Oyedokun	B.Sc, B.Tech..

SOIL AND PLANT NUTRITION

1	Mrs. C.I. Iloyanomon	B.Sc, M.Sc,
2	Mr. M.O. Ogunlade	B.Sc., M.Sc.
3	Mr. M.A. Daniel	B.Sc, M.Sc,
4	Mr. L.A. Adebowale	B.Sc.

CROP PROCESSING UTILIZATION

1	Dr. O. Olubamiwa	B.Sc, M.Sc, Ph.D
2	Mrs. C.O. Jayeola	B.Sc., M.Sc.
3	Mr. L.E. Yahaya	B.Sc, M.Sc.
4	Dr. S.O. Aroyeun	B.Sc, M.Sc., Ph.D
5	Dr. S.O. Ogunwolu	B.Sc, M.Sc., Ph.D
6	Mr. A.A. Ajao	B.Sc., M.Sc.
7	Mr. B. Adebowale	B.Sc, M.Sc.
8	Mr. R.O. Igbinadolor	B.Sc, M.Sc.
9	Mr. F.C. Mokwunye	B.Sc, M.Sc.

ECONOMICS AND STATISTICS

1	Dr. O.O. Oduwole	B.Sc, M.Sc, Ph.D
2	Mr. T.R. Shittu	B.Agric., M.Sc.
3	Mr. K.A. Oluyole	B.Sc, M.Sc.
4	Mrs. J.O. Lawal	B.Agric., M.Sc.
5	Mr. B.O. Obatolu	B.Agric., M.Sc.
6	Mrs. M. Adejumo	B.Agric., M.Sc.

EXTENSION

1	Dr. E.O. Aigbekaen	B.Sc, Ph.D
2	Dr. S.O. Adeogun	B.Sc., M.Sc., Ph.D
3	Mr. E.O. Uwagboe	B.Sc, M.Sc.
4	Mr.E.A.Agbongiarhuoyi	B.Tech., M.Sc.
5	Mr. S. Adebiyi	B.Tech.
6	Mr. I. Ndagi	B.Agric.

HEAD OF STATION

1	Dr. A.R. Adedeji	Ajassor

2	Dr. O.S. Ibiremo	Owena
3	Dr. S.O. Aroyeun	Mambilla
4	Mr.UlokoBabaAdakole	Ochaja
5	Dr. A. Sanusi	Ibeku
6	Dr. R.R. Ipinmoroti	Uhonmora

2009 NEW APPOINTMENT FOR SENIOR STAFF

S/NO.	NAME	POST	CONTISS	DATE OF ASSUMPTION	DEPLOYMENT
1	Adewale B.D.	Research Officer I	08	05/02/09	Plant Breeding
2	Ogbe Ibhafidon F.	Research Officer I	08	05/02/09	Plant Breeding
3	Adejobi K.B.	Research Officer I	08	06/02/09	Agronomy
4	Adeniyi D.O.	Research Officer I	08	09/02/09	Plant Pathology
5	Adeigbe Y.T. (Mrs)	Research Officer I	08	09/02/09	Plant Breeding
6	Adenuga O.O.	Research Officer I	08	10/02/09	Plant Breeding
7	Oyedokun A.V.	Research Officer I	08	10/02/09	Entomology
8	Adejumo A.S.	Higher Sci. Lab. Tech.	07	03/02/09	Agronomy
9	Ogundeji B.A.	Higher Sci. Lab. Tech.	07	05/02/09	Plant Pathology
10	Adewoye G.A.	Higher Sci. Lab. Tech.	07	06/02/09	SPN
11	Atanda G.A.	Higher Sci. Lab. Tech.	07	09/02/09	Agronomy
12	Agbola O.O.	Higher Sci. Lab. Tech.	07	10/02/09	CPU
13	Onifade E.O. (Mrs)	Higher Sci. Lab. Tech.	07	11/02/09	Entomology
14	Mgbech-Ezeri J.U. (Mrs)	Higher Sci. Lab. Tech.	07	02/03/09	Plant Pathology
15	Balogun S.T.	Higher Sci. Lab. Tech.	07	10/03/09	Plant Breeding
16	Oyeledun K.O.	Higher Agric. Supt.	07	05/02/09	Entomology
17	Okontah P.	Higher Agric. Supt.	07	05/02/09	Economics
18	Enosegbe K.A.	Higher Agric. Supt.	07	06/02/09	PEM
19	Owoduyilemi O.O. (Mrs)	Higher Agric. Supt.	07	06/02/09	PEM
20	Ojewale O.E.	Higher Agric. Supt.	07	06/02/09	SPN
21	Sobowale I.O.	Higher Agric. Supt.	07	09/02/09	Plant Breeding
22	Adesokan M.A.	Higher Agric. Supt.	07	10/02/09	Fab. & Design
23	Borokini O.O.	Higher Agric. Supt.	07	10/02/09	Agronomy
24	Adeosun J. O. (Miss)	Higher Agric. Supt.	07	11/02/09	Extension
25	Ajayi O.K.	Higher Agric. Supt.	07	26/02/09	PEM
26	Fatiregun O.A.	Higher Agric. Supt.	07	09/04/09	Fab. & Design
27	Gbalajobi K.E.	Higher Agric. Supt.	07	08/06/09	PEM
28	Orimogunje A.	Agric. Supt.	06	26/05/09	PEM
29	Ibe Osita	Librarian	08	13/03/09	LID
30	Ikokoh L. (Mrs)	Admin. Officer I	08	02/02/09	Admin. & Supplies
31	Ohikhatemen G.	Admin. Officer II	07	09/02/09	Admin. & Supplies
32	Oladipo O.	Admin. Officer II	07	25/05/09	Admin. & Supplies
33	Osiamgbi M.E. (Miss)	Admin. Officer II	07	01/07/09	Admin. & Supplies
34	Abu Shittu	Accountant I	08	23/03/09	Fin. & Accounts
35	Agbebaku H. (Mrs)	Accountant II	07	05/02/09	Fin. & Accounts
36	Yahaya M.O. (Mrs)	Higher Exec. Offr.	07	02/02/09	Admin. & Supplies
37	Ogolowa E.G. (Miss)	Higher Exec. Offr.	07	04/02/09	Admin. & Supplies
38	Adefarati O. (Mrs)	Higher Exec. Offr.	07	09/02/09	Fin. & Accounts
39	Adaramola F.C. (Miss)	Higher Exec. Offr.	07	27/05/09	Fin. & Accounts
40	Adekoya O.A.	Higher Exec. Offr.	07	26/05/09	Fin. & Accounts
41	Suleiman A.S. (Mrs)	Executive Officer	07	02/02/09	Extension
42	Olugbesan A.R. (Miss)	Conf. Secretary	07	05/02/09	D (Res)'s Office
43	Adepoju O.A. (Mrs)	Conf. Secretary	07	09/02/09	D(FSR&E)'s Office

44	Tiku G.B.	Conf. Secretary	07	10/02/09	D (PB&T)'s Office
45	Fowowe C.O.	Higher Catering Officer	07	07/04/09	Rest House
46	Omowaire F.A. (Mrs)	Higher Catering Officer	07	02/02/09	Rest House
47	Ikpefan P.A.	Maint. Engr. II	07	25/03/09	Engineering
48	Bamgbose A.	Higher Tech. Offr.	07	28/05/09	Fab. & Design

2009 JUNIOR STAFF APPOINTMENT

S/NO.	NAME	POST	CONTISS	DATE OF ASSUMPTION OF DUTY	DEPLOYMENT
1	Owolabi Iyabo (Miss)	AFA III	1	02/01/09	Fin. & Accounts
2	Mustapha Abibat (Miss)	AFA III	1	02/01/09	Agronomy
3	Ogunlusi Olayemi R. (Mrs)	AFA III	1	02/01/09	CPU
4	Tijani Akeem A.	AFA III	1	02/01/09	Plant Pathology
5	Idowu Ojo (Mrs)	AFA III	1	02/01/09	PEM
6	Ojo Oluwatoyin (Mrs)	AFA III	1	02/01/09	Audit
7	Ajekigbe Femi (Mrs)	AFA III	1	02/01/09	Admin.& Supplies
8	Amusa Taiwo	AFA III	1	02/01/09	Seed Garden
9	Olutade Bamidele O.	AFA III	1	02/01/09	Econs. & Statistics
10	Ganiyu Olubode	AFA III	1	02/01/09	PEM
11	Lawal Onyinyechi (Mrs)	AFA III	1	02/01/09	Engineering
12	Akintoroye Oladunni (Mrs.)	AFA III	1	02/01/09	PEM
13	Apanisile Sola	AFA III	1	02/01/09	Agronomy
14	Owoyele Yinka (Mrs)	AFA III	1	02/01/09	PEM
15	Obiazi Mabel (Mrs)	AFA III	1	02/01/09	CFC
16	Ibine Benjamin	AFA III	1	02/01/09	Admin. & Supplies
17	Olagunju Rasaq	AFA III	1	02/01/09	PEM
18	Ajayi Joseph Olalekan	AFA III	1	02/01/09	Extension
19	Oludayo Gbolagade	AFA III	1	02/01/09	PEM
20	Babalola Remi (Mrs)	AFA III	1	02/01/09	CFC
21	Okonche Juliana (Mrs)	AFA III	1	02/01/09	Entomology
22	Ibirogba Funke	AFA III	1	02/01/09	Plant Pathology
23	Aladegbomire Isaac	AFA III	1	02/01/09	PEM
24	Kafayat Azeez (Mrs)	AFA III	1	02/01/09	PEM
25	Akangbe Folorunsho	AFA III	1	02/01/09	PEM
26	Oguntoye Kazeem	AFA III	1	02/01/09	PEM
27	Akande Kunle	AFA III	1	02/01/09	PEM
28	Olusola Samuel	AFA III	1	02/01/09	PEM
29	Popoola Olalekan	AFA III	1	02/01/09	Seed Garden
30	Adeogun Gbenga	AFA III	1	02/01/09	CFC
31	Fowosere Bolajoko (Miss)	AFA III	1	02/01/09	PEM
32	Fakeye Joke (Miss)	AFA III	1	02/01/09	PEM
33	Emiola Angela (Mrs)	AFA III	1	02/01/09	Entomology
34	Okonji Michael	AFA III	1	02/01/09	PEM
35	Okorie Chimerue Joy (Mrs)	AFA III	1	02/01/09	CFC
36	Ugwuoke Patience (Miss)	AFA III	1	02/01/09	Seed Garden
37	Ibiyomi Peter	AFA III	1	02/01/09	PEM
38	Lasisi Yinka (Mrs)	AFA III	1	02/01/09	PEM

39	Adio Adebukola (Mrs)	AFA III	1	07/01/09	PEM
40	Odukoya Olatunde	AFA III	1	02/01/09	PEM
41	Agboola Ojo	AFA III	1	02/01/09	PEM
42	Olalekan Olugbade	AFA III	1	02/01/09	PEM
43	Ologunwa Temitope (Miss)	AFA III	1	02/01/09	PEM
44	Ganiyu Abu	AFA III	1	02/01/09	SPN
45	Omoha David	AFA III	1	02/01/09	PEM
46	Akano Joseph	AFA III	1	02/01/09	Admin. & Supplies
47	Adeyemo Sola J. (Mrs)	AFA III	1	02/01/09	PEM
48	Eze Cordelia (Mrs)	AFA III	1	02/01/09	PEM
49	Akinade Kazeem	AFA III	1	02/01/09	PEM
50	Oyepeju Tunde	AFA III	1	02/01/09	Rest House
51	Oladepo Kemi (Mrs)	AFA III	1	02/01/09	Fin. & Accounts
52	Oyewole Olaoluwa	AFA III	1	02/01/09	PEM
53	Adeniran Ojo	AFA III	1	02/01/09	PEM
54	Nwankwo Jacob	AFA III	1	02/01/09	PEM
55	Patrick Caroline (Mrs)	AFA III	1	02/01/09	Seed Garden
56	Adesiyan Mufutau	AFA III	1	02/01/09	Admin. & Supplies
57	Igwe Clement	AFA III	1	02/01/09	PEM
58	Ezekiel Abiodun	AFA III	1	02/01/09	PEM
59	Oyeneye Julius	AFA III	1	02/01/09	PEM
60	Amosu Sunday	AFA III	1	02/01/09	PEM
61	Raheem Waheed	AFA III	1	02/01/09	PEM
62	Johnson Iyabo (Miss)	AFA III	1	02/01/09	PEM
63	Ojo Stella Abosede (Miss)	AFA III	1	02/01/09	Admin. & Supplies
64	Adesoji Ronke (Miss)	AFA III	1	02/01/09	PEM
65	Hassan Olawale	AFA III	1	02/01/09	PEM
66	Lasisi Saidi	AFA III	1	02/01/09	PEM
67	Salaudeen Adedayo	AFA III	1	02/01/09	Library
68	Obi Samuel	AFA III	1	02/01/09	Admin. & Supplies
69	Adedeji John	AFA III	1	02/01/09	PEM
70	Onipe Siyaka Josehp	AFA III	1	02/01/09	Econs. & Statistics
71	Babalola Moshood	AFA III	1	02/01/09	CFC
72	Ayinde A. Jelili	AFA III	1	02/01/09	PEM
73	Ibrahim Tajudeen	AFA III	1	02/01/09	Owena S/S
74	Mohammed Shaibu	AFA III	1	02/01/09	Owena S/S
75	Bolarinwa Felix	AFA III	1	02/01/09	Owena S/S
76	Anijese Funmilayo (Mrs)	AFA III	1	02/01/09	Uhonmora S/S
77	Ulkhifo Michael	AFA III	1	02/01/09	Uhonmora S/S
78	Isokpehi Daniel	AFA III	1	02/01/09	Uhonmora S/S
79	Nwachukwu Benedict	AFA III	1	02/01/09	Ibeku S/S
80	Eze Ifeanyi	AFA III	1	02/01/09	PEM
81	Adeoye Hassan	AFA III	1	02/01/09	PEM
82	Oghenyi Agomu	AFA III	1	02/01/09	PEM
83	Chimoboh Oluchi (Miss)	AFA III	1	02/01/09	PEM
84	Eze Joseph N.	AFA III	1	02/01/09	Ibeku S/S
85	Ihueze Chinedu (Mrs)	AFA III	1	02/01/09	Ibeku S/S
86	Okoro Emmanuel	AFA III	1	02/01/09	Ibeku S/S
87	Ireoulo Chimobi	AFA III	1	02/01/09	Ibeku S/S
88	Ani Cyril	AFA III	1	02/01/09	Ibeku S/S
89	Aniobi Sunday	AFA III	1	02/01/09	Ibeku S/S
90	Animba Michael	AFA III	1	02/01/09	Ibeku S/S
91	Ali Mohammed	AFA III	1	02/01/09	Ochaja S/S

92	Nifu Yahaya	AFA III	1	02/01/09	Ochaja S/S
93	Okpanachi Nda	AFA III	1	02/01/09	Ochaja S/S
94	Atawodi Jibrin	AFA III	1	02/01/09	Ochaja S/S
95	Otanwa John	AFA III	1	02/01/09	Ochaja S/S
96	Musa Paul T.	AFA III	1	02/01/09	Ochaja S/S
97	Dogo Genesis	AFA III	1	02/01/09	Mambilla S/S
98	Isaiah Regina J. (Mrs)	AFA III	1	02/01/09	Mambilla S/S
99	Clement Ephesian	AFA III	1	02/01/09	Mambilla S/S
100	Moses Philippians	AFA III	1	02/01/09	Mambilla S/S
101	Miku Genesis	AFA III	1	02/01/09	Mambilla S/S
102	Uzichu Augustine	AFA III	1	02/01/09	Ajassor S/S
103	Sunday Ekereobong	AFA III	1	02/01/09	Ajassor S/S

104	Samuel Abraham	AFA III	1	02/01/09	Ajassor S/S
105	Udoh James	AFA III	1	02/01/09	Ajassor S/S
106	Echa Godwin Idagu	AFA III	1	02/01/09	Ajassor S/S
107	Ogar Peter	AFA III	1	02/01/09	Ajassor S/S
108	Asua Ime Sunday	AFA III	1	02/01/09	Ajassor S/S
109	Iyang Patrick Adariku	AFA III	1	02/01/09	Ajassor S/S
110	Azogor Echeng Isong	AFA III	1	02/01/09	Ajassor S/S
111	Eleng Ele Emeng	AFA III	1	02/01/09	Ajassor S/S
112	Igbang Bassey Igbang	AFA III	1	02/01/09	Ajassor S/S
113	Okoi Eteng Iwara	AFA III	1	02/01/09	Ajassor S/S
114	Ubi Augustine	AFA III	1	02/01/09	Ajassor S/S
115	Onanuga Odubola	Watchman	1	02/01/09	Security
116	Oderinde Sunday	Watchman	1	02/01/09	Security
117	Oke John	Watchman	1	02/01/09	Security
118	Oyewale Samson	Watchman	1	02/01/09	Security
119	Akintoroye Johnson	Watchman	1	02/01/09	Security
120	Adebiyi Oluwabukayomi	Watchman	1	02/01/09	Security
121	Ijadunola Noah	Watchman	1	02/01/09	Security
122	Oladipupo Samuel	Watchman	1	02/01/09	Security
123	Osalaye Joseph	Watchman	1	02/01/09	Security
124	Ajayeoba Olanipekun	Watchman	1	02/01/09	Security
125	Adekanbi Olusegun	Watchman	1	02/01/09	Security
126	Salami Kamoru	Watchman	1	02/01/09	Security
127	Owoyemi Julius	Watchman	1	02/01/09	Security
128	Eze Nicholas	Watchman	1	02/01/09	Security
129	Olubajo Bowale	Watchman	1	02/01/09	Security
130	Emmanuel Yakubu	Watchman	1	02/01/09	Security
131	Guma Joshua	Watchman	1	02/01/09	Security
132	Oghenegueke John	Watchman	1	07/01/09	Security
133	Salman A. Rasheed	Watchman	1	02/01/09	Security
134	Godwin O. Ofar	Watchman	1	02/01/09	Security
135	Nweke Nwankwo	Watchman	1	06/01/09	Security
136	Adio Oludare	Works Attendant	1	02/01/09	Engineering
137	Alade Gboyega	Works Attendant	1	02/01/09	Engineering
138	Osun Michael	Works	1	02/01/09	Engineering

		Attendant			
139	Oladimeji Taofeek	Works Attendant	1	02/01/09	Engineering
140	Faniyi Jimoh Abiola	Works Attendant	1	02/01/09	Engineering
141	Boluwade Sunday	Works Attendant	1	09/01/09	Engineering
142	Olawore Olutunde	Steward	1	02/01/09	Rest House
143	Makinde Felicia (Mrs)	Steward	1	02/01/09	Rest House
145	Abiade Suleiman	AFA III	1	20/03/09	PEM
146	Olatubosun O. (Miss)	Asst. Agric. Supt	5	28/05/09	Agronomy
147	Okorue F.	AFA III	1	28/05/09	PEM
148	Raheem Saidi	AFA III	1	01/06/09	PEM
149	Philips Ovie E.	AFA III	1	01/06/09	PEM
150	Olateju Kazeem	AFA III	1	01/06/09	PEM
151	Ibrahim Wasiu	Asst. Exec. Offr.	5	02/06/09	Fin. & Accounts
152	Adisa Sikiru	AFA III	1	19/06/09	PEM
153	Zubair Oladimeji	AFA III	1	19/06/09	PEM
154	Mallam Dada Bashiru	Watchman	1	30/06/09	Owena S/S
155	Ojo Oluwaponmile	Asst. Clerical Offr.	2	10/08/09	Owena S/S
156	Arobieke S. B.	Asst. Clerical Offr.	2	02/07/09	Owena S/S
157	Ukaegbu Chika O.	Health	1	02/10/09	Ibeku S/S
158	Onoja Joseph	Motor Driver	2	02/10/09	Uhonmora S/S
159	Oluwole Segun	Motor Driver	2	05/10/09	Transport
160	Ibrahim Ariyo	Motor Driver	2	05/10/09	Transport
161	Adebusuyi Adesuyi	Motor Driver	2	05/10/09	Transport
162	Bolaji Oyedele	Motor Driver	2	05/10/09	Transport
163	Amasowamwan O.S.	Motor Driver	2	05/10/09	Transport
164	Ifidon Ikhuosho	Motor Driver	2	08/10/09	Transport

2009 LEFT THE SERVICE

S/N	Name	Designation	HATISS	Deployment	Date of 1st Appt.	Date of Exit	Mode of Exit
1	O. Kolawole	Chief Lab. Tech.	13	CPU	28/10/74	3/11/09	Length of Service
2	A. Omotobora	Chief Lab. Tech.	13	SPN	21/5/74	21/4/09	Length of Service
3	S.K. Ale	Prin. Photographer	09	LID	1/8/78	6/11/09	Length of Service
4	O.A. Adediran	Chief Clerical Officer	06	Owena S/S	`15/8/75	1/8/09	Length of

							Service
5	Mrs. C.M. Akinsiku	Chief Secretarial Asst	08	Admin	1/12/78	13/4/09	Age
6	Mrs. K.T. Bamidele	Chief Secretarial Asst	08	Admin	8/3/77	9/9/09	Length of Service
7.	Mrs. Alice Fagite	Chief Secretarial Asst	08	Owena S/S	1/5/74	1/5/09	Length of service
8.	Mrs. M.P. Inyang	Chief Nursing Supt.	13	Ikom S/S	1/9/77	14/7/09	Age
9	Mrs. D. A Ligali	Asst. Chief Agric Supt	12	Agronomy	15/10/74	15/10/09	Length of Service
10	S. A. Afolarin	Asst. Chief Agric. Supt	12	PEM	22/5/74	22/5/09	Length of Service
11	A.A. Adebambo	Asst. Chief Agric. Supt	12	Agronomy	8/11/74	8/11/09	Length of Service
12	Mrs. Ben Nana G.A	Chief Library Officer	12	LID	1/1/74	1/1/09	Length of Service
13	Tope Oluwayomi	Senior Exe. Officer	08	Finance & Acct.	1/6/03	14/1/09	Deceased
14	Asimiyu Olayiwola	Agric. Field Attd. 1	03	PEM	2/6/03	16/1/09	Deceased
15	Mrs. E. Y. Osun	Chief Agric Field Over	06	SPN	6/8/74	6/8/09	Length of Service
16	F. Eguntola	Asst. Chief Agric Supt	12	PEM	1/9/74	1/9/09	Length of Service
17	Okon Okpo	Head Watchman	03	Ajassor	9/12/96	12/1/09	Decease
18	Adeniyi Adenike	Executive Officer	06	Audit	1/6/96	12/1/09	Deceased
19	D.A. Amusa	Executive Officer	06	Admin & Supplies	16/9/74	16/9/09	Length of Service
20	Ogunjobi G.A.	Snr. Agric. Supt.	08	SPN	23/8/02	1/7/09	Deceased
21	Onyema Owasi	Security Guard 1	03	Ibeku S/S	2/6/03	8/6/09	Deceased
22	Mrs. L.A. Oyatobo	Chief Agric. Field Overs	06	SPN	6/8/74	6/8/09	Lenghtof service
23	P. Osodi	Agric Field Overseer	03	SPN	14/6/96	12/2/09	Age
24	T. Ojeyemi	Asst. Chief Agric Supt 1	11	Plant Breeding	2/9/74	2/9/09	Length of Service
25	J. Oyeniyan	Asst. Chief Agric Supt	12	PEM	16/7/74	16/7/09	Length of Service
26	Mrs. M.O. Otigbo	Agric. Field Attd. Gd. I	03	Uhonmora S/S	17/7/95	19/7/09	Length of Service
27	Hammed, L.A.	Prin. Research Officer	11	Ochaja S/S	14/9/99	31/8/09	Withdrawal of Service
28	Dr. Adeogun S.O.	Prin. Research Officer	11	Ext.	25/2/02	31/10/09	Withdrawal of Service
29	Ogbe, I.F	Research Officer 1	08	P/Breeding	5/2/09	3/9/09	Resignation
30	Mgbechi Ezeri (Mr)	Lab. Tech II	07	Plant Pathol	2/3/09	30/9/09	Resignation

2009 SENIOR STAFF PROMOTION

S/N	Name	Designation	(CONTISS)	Date of Present Appt.	Promotable post	Salary on Promotion	Recommended Effective Date
1	(Dr) Oduwole, O.O.	Chief Res. Officer	13	1/2/03	Asst. Director	14	1/10/09

2	Dr. Adedeji Abiodun Rasheed	Prin. Research Officer	11	1/10/05	Chief Res. Officer	13`	1/10/08
3	Dr. Aroyeun Samsudeen Olusegun	Prin. Research Officer	11	1/10/05	Chief Res. Officer	13	1/10/09
4	Ogunjobi Moruf Ayinla Kehinde	Snr. Res. Officerq	09	1/10/05	Prin. Res. Officer	11	1/10/09
5	Lawal Justina Oluyemisi (Mrs.)	Snr. Res. Officer	09	1/10/06	Prin. Res. Officer	11	1/10/09
6	Anikwe James Chucks	Snr. Res. Officer	09	1/10/06	Prin. Res. Officer	11	1/10/09
7	Orisajo Samuel	Snr. Res. Officer	09	1/10/06	Prin. Res. Officer	11	1/10/09
8	Muyiwa Anna Abimbola (Mrs)	Res. Officer 1	08	26/3/06	Snr. Res. Officer	09	1/10/09
9	Adejumo Magret Omolara (Mrs)	Res. Officer 1	08	27/07/06	Snr. Res. Officer	09	1/10/09
10	Mokwunye Idogesit Umanah (Mrs)	Res. Officer 1	08	7/9/06	Snr. Res. Officer	09	1/10/09
11	Adio Stephen Olukunle	Asst. Chief Sci. Lab. Technologist	12	1/10/06	Chief Sci. Lab Technologist	13	1/10/09
12	Sunmonu Abiodun Lukman	Asst. Chief Sci. Lab	12	1/10/06	Chief Sci. Lab Tech.	13	1/10/09
13	Alagbe Oluremi Omolola (Mrs)	Prin. Sci. Lab. Tech. II	09	1/10/06	Prin. Sci. Lab. Tech.	11	1/10/09
14	Obatoye Ayodeji Olarewaju	Snr. Sci. Lab. Tech.	08	1/10/06	Prin.Sci. Lab. Tech. II	09	1/10/09
15	Ejiofor Julianah Nwakego (Miss)	Snr. Sci. Lab. Tech.	08	1/10/06	Prin. Sci. Lab. Tech II	09	1/10/09
16	Ebulu Sunday	Snr. Sci. Lab. Tech.	08	1/10/06	Prin. Sci. Lab. Tech. II	09	1/101/09
17	Azeez Kolawole Mosudi	Asst. Chief Agric. Supt	12`	1/10/06	Chief Agric. Supt.	13	1/10/09
18	Akande Mary Adebisi (Mrs)	Asst. Chief Agric. Supt.	12	1/10/06	Chief Agric. Supt	13	1/10/09
19	Adebambo Adekunle	Asst. Chief Agric. Supt.	12	1/10/06	Chief Agric. Supt	13	1/10/09
20	Adeyemo Gegina Folasade (Mrs)	Prin. Agric. Supt. II	09	1/10/06	Prin. Agric. Supt. I	11	1/10/09
21	Adigun Aderinto Benjamin	Snr. Agric. Supt	08	1/10/06	Prin. Agric. Supt. II	09	1/10/09
22	Dada Olayinka Alfred	Snr. Agric. Supt	08	1/10/06	Prin. Agric. Supt. II	09	1/10/09
23	Idi Muhammed	Snr. Agric. Supt	08	1/10/06	Prin. Agric. Supt. II	09	1/10/09
24	Enagu Victor	Snr. Agric. Supt	08	1/10/06	Prin. Agric. Supt. II	09	1/10/09
25	Chila Njwe Fredrick	Snr. Agric. Supt	08	1/10/06	Prin. Agric. Supt. II	09	1/10/09

26	Patrick Paulina Ogar (Miss)	Snr. Agric. Supt	08	1/10/06	Prin. Agric. Supt. II	09	1/10/09
27	Mboyel Jesse	Snr. Agric. Supt	08	1/10/06	Prin. Agric. Supt. II	09	1/10/09
28	Olayiwola Adekunle Moruf	Snr. Agric. Supt	08	1/10/06	Prin. Agric. Supt. II	09	1/10/09
29	Nmeregini Ursula Nneka (Mrs.)	Snr. Agric. Supt	08	1/10/06	Prin. Agric. Supt. II	09	1/10/09
30	Okaisabor Jamie Ohioma	Snr. Agric. Supt	08	1/10/06	Prin. Agric. Supt. II	09	1/10/09
31	Uloko Baba Adekole	Snr. Agric. Supt	08	1/10/06	Prin. Agric. Supt. II	09	1/10/09
32	Mari Augustine	Higher Agric. Supt	07	1/10/06	Snr. Agric. Supt.	08	1/10/09
33	Ejakpovi Felix	Asst.Chief Agric. Field Overseer	05	1/10/06	Chief Agric. Field Overseer	06	1/10/09
34	Oketokun Grace (Mrs)	Asst. Chief Agric. Field Oversee	05	1/10/06	Chief Agric. Field Overseer	06	1/10/09
35	Pelemo Ademola	Snr. Statistical Officer	08	1/10/06	Prin. Statistical Officer II	09	1/10/09
36	Otunoye Theresa (Mrs)	Higher Statistical Officer	07	`1/101/06	Snr. Statistical Off.	08	1/10/09
37	Fagbami O.	Chief Librarian	13	1/10/05	Asst. Director	14	1/10/09
38	Ale Stephen Kayode	Prin. Photographer Gd.I	09	1/10/00	Asst. Chief Photographer	11	1/10/09
39	Okonkwo Tayo (Mrs)	Snior Printer	05	1/10/06	Chief Printer	06	1/10/09
40	Akhidime Sunday Itua	Admin. Officer I	08	1/10/06	Snr. Admin. Officer	09	1/10/09
41	Oluwadare Sarah E. (Mrs)	Admin. Officer	08	1/106/06	Snr. Admin. Officer	09	1/10/09
42	Fabowale Kolawole Musliu	Plrin. Accountant	11	1/10/02	Asst. Chief Accountant	12	1/10/09
43	Ogunkanmi D. A. (Mrs)	Asst. Chief Exec. Officer	12	1/10/05	Chief Exec. Officer	13	1/10/09
44	Bakare Emmanuel O	Prin. Exec. Officer I	11	1/10/06	Assst. Chief Exe. Officer	12	1/10/09
45	Ogunkua Olumide O.	Prin. Exec. Officer II	09	1/10/06	Prin. Exec. Officer I	11	1/10/09
46	Olumini M. Olukemi (Mrs)	Prin. Exec. Officer II	09	1/10/06	Prin. Exec. Officer I	11	1/10/09
47	Oyeneye Taofeek	Prin. Exec. Officer II	09	1/10/06	Prin. Exec. Officer I	11	1/10/09
48	Gbadamosi Olusola (Mrs)	Prin. Exec. Officer II	09	1/10/06	Prin. Exec. Officer I	11	1/10/09
49	Akinwan de Olufunke (Mrs)	Prin. Exec. Officer II	09	1/10/06	Prin. Exec. Officer I	11	1/10/09
50	Yahaya Zulukas Sulaimon	Prin. Exec. Officer II	09	1/10/06	Prin. Exec. Officer I	11	1/10/09
51	Odusote Ayodele Ayodeji	Prin. Exec. Officer II	09	1/10/06	Prin. Exec. Officer I	11	1/10/09
52	Babatunde Adeyinka Sherifat (Mrs)	Prin. Exec. Officer II	09	1/10/06	Prin. Exec. Officer I	11	1/10/09

53	Arutu Nurudeen Ademola	Snr. Exec. Officer	08	1/10/06	Prin. Exec.	09	1/10/09

					Officer II		
54	Olayinka Segun Olugbenga	Snr. Exec. Officer	08	1/10/06	Prin. Exec. Officer II	09	1/10/09
55	Ibiremo Omolade Blessing (Mrs)	Snr. Exec. Officer	08	1/10/06	Prin. Exec. Officer II	09	1/10/09
56	Adewusi E.M.A. (Mrs)	Higher Exec. Officer	07	1/10/05	Snr. Exec. Officer	08	1/10/09
57	Adekojo A Sunday	Exec. Officer	06	1/10/06	Higher Exec. Officer	07	1/10/09
58	Mathew C.M. (Mrs)	Executive Officer	06	1.10/95	Higher Exec. Officer	07	1/10/09
59	Emiola B.O. (Mrs)	Executive Officer	06	1/10/96	Higher Exec. Officer	07	1/10/09
60	Isong Ekama Blessing (Mrs)	Snr. Clerical Officer	05	1/101/06	Chief Clerical Officer	06	1/10/09
61	Akintoye Alice Modasola (Mrs)	Prin. Confidential Sec.	09	1/10/06	Asst. Chief Conf. Sec.	11	1/10/09
62	Adeagbo Temitope Yewande (Mrs)	Sen. Conf. Secretary	08	1/10/06	Prin. Confidential Sec.	09	1/10/09
64	Somuji Magret Amoke (Mrs)	Senior Secretarial Asst. II	06	1/10/06	Snr. Sec. Asst	07	1/10/09
65	Kehinde Victoria (Mrs)	Senior Secretarial Asst. II	06	1/10/06	Snr. Sec. Asst	07	1/10/09
66	Okanigbuan Juliana Omo (Mrs	Senior Secretarial Asst. II	06	1/10/06	Snr. Sec. Asst	07	1/10/09
67	Oyelami Roseline Adetola (Mrs)	Senior Secretarial Asst. II	06	1/10/06	Snr. Sec. Asst	07	1/10/09
68	Ajila Gbeminiyi Kudirat (Mrs)	Asst. Chief Matron/Asst. Chief Nursing Supt.	12	1/10/06	Chief MatronChief Nursing Supt.	13	1/10/09
69	Ojeniyi Enitan Modupe (Mrs)	Asst. Chief Matron/Asst. Chief Nursing Supt.	12	1/10/06	Chief MatronChief Nursing Supt	13	1/10/09
70	Onatunde-Onanuga Adeola (Mrs)	Snr. Nurs. Sister/Snr. Nursing Supt.	08	1/10/06	Matron/Prin. Nursisng Supt	09	1/10/09
71	Oduola Adenike Olubukola (Mrs)	Snr. Nurs. Sister/Snr. Nursing Supt.	08	1/10/06	Matron/Prin. Nursisng Supt	09	1/10/09
72	Olatunji Patricia Onikolemlo (Mrs)	Snr. Nurs. Sister/Snr. Nursing Supt.	08	1/10/06	Matron/Prin. Nursisng Supt	09	1/10/09
73	Baoku Helen (Mrs)	Snr. Nurs. Sister/Snr. Nursing Supt.	08	1/10/06	Matron/Prin. Nursisng Supt	09	1/10/09
74	Oluwagbeyi J.A.	Asst. Chief Tech. Officer	12	1/10/06	Chief Tech. Officer	13	1/10/09
75	Adelleke Sunday	Senior Tech. Officer	08	1/10/06	Prin. Tech. Officer II	09	1/10/09
76	Ola, Olutola Stephen	Senior Tech. Officer	08	1/10/06	Prin. Tech. Officer II	09	1/10/09

77	Ajiboye Olugbemiga	Higher Tech. Officer	07	1/10/06	Snr. Tech. Officer	08	1/10/09
78.	Yinusa Sakiru	Technical Officer	06	1/10/05	Higher Tech. Officer	07	1/10/09
79	Balogun Rowland O.	Foreman	05	1/10/06	Foreman	06	1/10/09
80	Akinwale Abraham	Foreman	05	1/10/06	Foreman	06	1/10/09
81	Musa Ibrahim Yahaya	Asst. Chief Store Keeper	05	1/10/06	Chief Store Keeper	06	1/10/09

2009 SENIOR STAFF ADVANCEMENT/INTER CADRE TRANSFER

S/N	Name	Designation	(CONTISS)	Date of Present Appt.	Advancement/inter-cadre transfer post	Salary on Adv/Inter-cadre Transfer	Recommended Effective Date
1	Sorinolu O.	Prin. Executive Officer	09	1/10/06	Accountant I	8(9 Personal)	1/10/09
2	Adeyemi A.R.E. (Mrs)	Prin. Executive Officer	09	1/10/06	Accountant I	8 (9 Personal)	1/10/09
3	Olawole F.O. (Mrs)	Chief Clerical Officer	06	1/10/02	Higher Executive Officer	7	1/10/09
4	Togun K.O.	Executive Officer	06	1/10/05	Higher Executive Officer	7	1/10/09
5	Ayoade O.P.	Chief Clerical Officer	06	1/10/05	Higher Executive Officer	7	1/10/09
6	Mr. D. Okontah	Head Security Guard	05	1/10/05	Executive Officer	6	1/10/09

COCOA PROGRAMME

Experimental Title: Breeding for early maturing or precocious cocoa hybrids (Adenuga, O. O., Adewale, B. D. and Adeigbe, O. O.)

Objectives: The objective of the study was to obtain cocoa hybrids with reasonably short gestation period

Justification: Cocoa is a crop with long gestation period. In most cases, it bears fruit about four years or even more after establishment in the field. An evaluation of some hybrids at CRIN Headquarters led to the identification of some 27 genotypes which attained fruiting between 18 and 24 months after field establishment. Pod production among these 27 genotypes ranged between 1 and 18 pods per individual tree at about 30 months of field establishment. Improvement on these findings will make early maturing materials available for farmers.

Materials and method: In an experiment, seven promising genotypes among these 27 were crossed in a 7x7 half diallel design in which each of the 7 was mated to everyone else including itself. The progenies thus generated were raised in the nursery and transferred to the field at CRIN Headquarters in Ibadan in June 2011. The experimental layout is RCBD with 3 replications. The collection of juvenile data on the field commenced at 3 months after field establishment and is ongoing, hence result is not yet ready from this experiment.

Conclusion: The work is ongoing. The final and derivative deduction shall be made at the end of the experiment.

Constraint: Inadequate and untimely release of fund. The irrigation of the field was personally funded. Hence the established plants were adversely affected by the harsh weather during the dry season between December 2011 and April 2012. At present, there is no fund available for the establishment of the second field which should be established at Owena in Ondo State, as the experiment is a multilocational trial.
The other two experiments that were designed alongside this one could not proceed further, owing to inadequacy of fund.

Outlook: The research is ongoing.

Experimental Title: Amelioration of nematode parasitism on cocoa (*theobroma cacao* l.) Seedlings with poultry litter as soil amendment in the nursery and during field establishment (Orisajo, S.B., Fademi, O.A. and Dongo, L.N.)

Introduction

Cacao genotypes currently grown by many farmers in West Africa are susceptible to nematode diseases. Although the cocoa black pod caused by *Phytophthora megakarya* is a major cause of production losses in the Sub-Region, root-knot nematodes have also caused losses including yield decrease, sudden death of trees and retardation of seedling growth in nurseries and young plantations around the world (Afolami, 1981a, Campos and Villain, 2005). Elimination of nematodes by sterilization of soil or amelioration of their effects by soil amendment or application of nematicides have always led to improved health of the cacao crop (Afolami 1981a, Afolami and Ojo 1984, Orisajo and Fademi 2005). Currently, *Meloidogyne* spp. are the most important nematodes of cacao due to their pathogenicity and wide distribution in cocoa producing regions of the world (Sharma & Sher, 1974; Campos & Villain, 2005; Afolami & Caveness, 1983; Lordello, 1968; Sosamma *et al*., 1980b, Fademi *et al*., 2006). The widespread distribution of these nematodes in many cacao producing areas make in-depth studies urgent if farmers are to be assisted to overcome the frustration they currently face as a result of failure of *T. cacao* seedlings to establish in new and rehabilitated plantations. This study is an attempt to provide some sustainable solution to the problem.

Materials and Methods

Nursery and field experiments were carried out at the Cocoa Research Institute of Nigeria (CRIN) in Ibadan (Latitude 7.26°N, Longitude 3.54E°. Initial nematode population and identification of the species present in the field was determined.

Nursery Experiment

The 4x3 factorial experiment with four rates of poultry litter (0, 5, 7, 10g/pot) and three rates of carbofuran (0, 1, 2g/pot) was set up in a Randomized Complete Block Design (RCBD) replicated six times. Three seeds of F_3 Amazon cocoa cultivar were planted in each pot and later thinned to one per pot one week after emergence and maintained in the nursery for five months. Poultry litter consisting of poultry droppings and wood shavings was collected from a commercial broiler house in Ibadan and air-dried and applied to the soil in the nursery bags according to the rates indicated earlier for each treatment. Regular observations were made monthly to record data on disease symptom expression, plant height, stem girth, number of leaves and leaf area *in situ*. Experiment was terminated five months after planting to coincide with the timing for commercial cacao seedling production. Data on fresh weight of leaves, stem and roots were taken and roots were assayed for nematode infection of roots and galling index (Sasser *et al*., 1984).

Field Experiment

The 4x3 factorial field experiment with four rates of poultry litter (0, 0.2, 0.3, 0.4t/ha) and three rates of carbofuran (0, 1.25, 2.50kg a.i/ha was set as a randomized complete block design replicated three times. The poultry litter in the relevant treatments were incorporated into the soil around the plant at planting time and again at 3, 6 and 9 months after planting, while the carbofuran treatments were applied at planting and repeated after three months around the plants. Survival counts of cocoa were recorded at 3 months after transplanting. Growth data taken on each plant included plant height, stem girth, number of leaves, and leaf area. Nematode population densities were $\log_{10}(x + 1)$ transformed and percentage data were

square-root-transformed prior to analysis (Gomez & Gomez, 1984). Analyses of variance (ANOVA) were carried out to test for main effects and interactions. Pre-planned comparisons between treatment combinations were tested with linear contrasts. Regression analyses were used to develop linear models relating nematode numbers and rate of poultry litter applications to cacao growth. All analyses were performed using GENSTAT version 7.1., the data on cacao plants are presented.

Results

Cacao plants in the poultry litter treatment combinations were healthier compared with un-amended plots in the nursery and in the field (Plates 1). Significant lower population densities of nematodes were observed in soils treated with poultry litter in combination with carbofuran compared to the control (Fig. 1). Poultry litter at 7 and 10g/pot alone or combined with carbofuran consistently reduced nematode population densities.

Poultry litter (PL) applied alone or combined with carbofuran at 0.3 and 0.4t/ha gave 100% survival, while treatment with PL at 0.2t/ha and carbofuran at 2.50kg a.i./ha recorded 90 and 85% survival respectively. The un-amended plots and carbofuran treatment at 1.25kg a.i/ha had the same 65% level of seedling survival (Fig. 2). Twelve weeks after transplanting, some of the cacao seedlings in the control plots had died back from the meristematic bud to the lower leaves, with the leaves dried up and hanging on the plant (Plate 1). The surviving seedlings in un-amended plots were stunted and unthrifty, with fewer and smaller leaves compared to the amended plots.

The growth of cacao was consistently improved by the amendments compared to the un-amended plots in the field naturally infested with plant-parasitic nematodes. Treatments with poultry litter alone or in combination with carbofuran led to a significant improvement in growth, development and well-being of cacao plants as expressed in height, girth, branches, number of leaves and leaf area (Table 1). There was no significant difference between PL treatment at 0.4t/ha and a combination of 0.4t/ha and carbofuran at either 2.5 kg a.i/ha or 1.25 kg a.i/ha. Growth was by far superior in the 0.4t/ha treatment than the lower 0.3t/ha alone or combined with carbofuran (Table 1).

Discussion

Organic soil amendments offer an alternative or supplementary management tactic to chemical control of nematode pathogens on agricultural crops (Aktar & Malik, 2000). In addition to providing supplementary nutrients which in turn may have a positive effect on vegetative growth and yield (Rodriguez-Kabana *et al*., 1987; Salau *et al*., 1992; Sims & Wolf, 1994), organic soil amendments are known to mitigate the impact of plant-parasitic nematodes on cacao (Orisajo & Fademi, 2005; Orisajo & Dongo, 2005). In this study, poultry litter soil amendment suppressed population densities of plant-parasitic nematodes, thereby improving the growth and establishment of cacao in the field.

Results from this experiment, in the nursery, showed that *M. incognita* population densities decreased in response to increasing rates of poultry litter in amended soil up to 0.4t/ha. This result is consistent with the report of Riegel and Noe (2000) who demonstrated that the application of litter 14 days before planting was optimal for effects on nematode population densities. Plant height, leaf area, dry shoot and root weights of cacao seedlings were all stimulated by the addition of litter in *M. incognita*-infested soil. The addition of poultry litter to soil leads to a better environment for the growth of plant roots. This enhances the utilization of soil nutrients, as a consequence of which the nematode damage gets markedly reduced (Van Den Boogert *et al*., 1994). A

significant increase in root mass of plants in soil amended with poultry litter and subsequent suppression of nematode numbers observed in this experiment have obviously promoted growth and establishment of the cacao seedlings.

Failure of cacao seedlings to establish in the field has been attributed to several factors which include nutrient deficiency, poor physical properties of the soil (Ndubuaku & Lucas, 2001), pest attack and harsh weather conditions at the time of transplanting (Lass & Wood, 1985) and nematodes (Sharma & Sher, 1973, Afolami, 1981a, 1981b). There was 100% survival of cacao plants three months after transplanting into the poultry litter-amended plots in the field in contrast to 35% dead plants in unamended plots in this experiment. Subsequent growth of cacao in the poultry litter-amended plots revealed the manurial and nematicidal potential of the litter.

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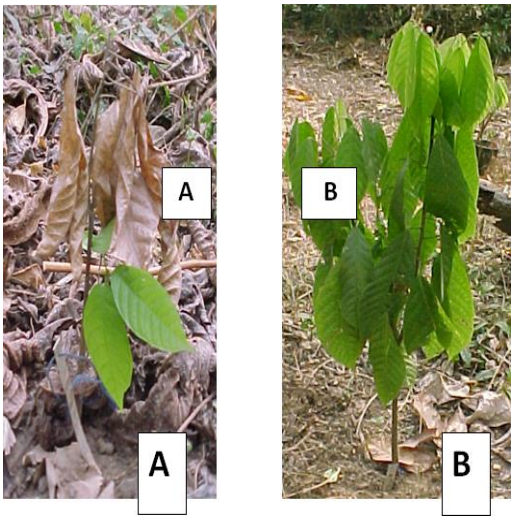

Plate 1. Die-back syndrome in cacao plant in un-amended plot (A) 12 weeks after transplanting compared with plant in plot amended with poultry litter (B). Note the early branching and flushing in B, signs of healthy development in a cacao plant of its age.

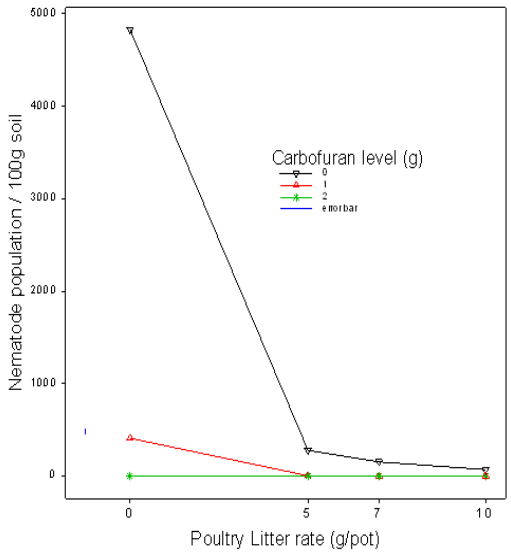

Figure 1. Effects of poultry litter and carbofuran soil amendments on *M. incognita* population density in the soil of cacao seedlings in the nursery.

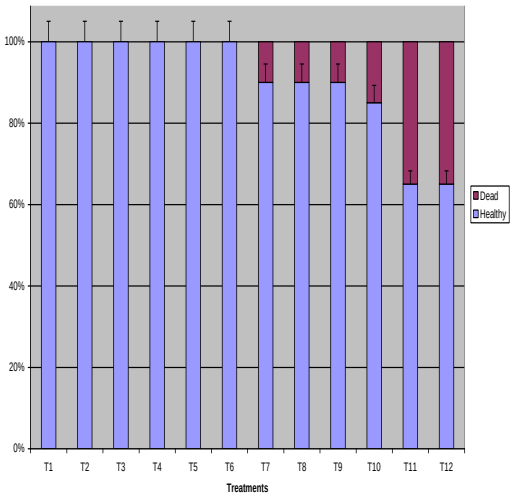

Figure 2. Survival counts (%) of cacao seedlings in the field 3 months after transplanting under twelve treatments (T1: Poultry litter at 0.4t/ha, T2: Poultry litter at 0.4t/ha + carbofuran at 2.50kg a.i./ha, T3: Poultry litter at 0.4t/ha + carbofuran at 1.25kg a.i./ha, T4: Poultry litter at 0.3t/ha, T5: Poultry litter at 0.3t/ha + carbofuran at 2.50kg a.i./ha, T6: Poultry litter at 0.3t/ha + carbofuran at 1.25kg a.i./ha, T7: Poultry litter at 0.2t/ha, T8: Poultry litter at 0.2t/ha + carbofuran at 2.50kg a.i./ha, T9: Poultry litter at 0.2t/ha + carbofuran at 1.25kg a.i./ha, T10: Carbofuran at 2.5kg a.i./ha, T11: Carbofuran at 1.25kg a.i./ha, T12: Control with no amendments).

Table 1. Effects of poultry litter and carbofuran soil amendments on the growth of cacao in the field naturally infested with plant-parasitic nematodes

Treatments	Plant height[1] (cm)	Stem girth[1] (cm)	Number of Branches[1]	Number of Leaves[1]	Leaf area[1] (cm^2)
PL at 0.4t/ha	252.3a	4.38a	33.8a	342.8a	246.3a
PL at 0.4t/ha + C at 2.50kg a.i./ha	252.7a	4.39a	32.3a	341.7a	246.7a
PL at 0.4t/ha + C at 1.25kg a.i./ha	253.3a	4.39a	32.8a	340.8a	246.3a
PL at 0.3t/ha	228.7c	3.98c	24.3b	256.3b	224.3b
PL at 0.3t/ha + C at 2.50kg a.i./ha	234.0b	4.03b	24.3b	257.0b	224.3b
PL at 0.3t/ha + C at 1.25kg a.i./ha	234.7b	4.05b	25.0b	257.0b	224.7b
PL at 0.2t/ha	157.0d	3.15d	19.7c	154.0c	143.7c
PL at 0.2t/ha + C at 2.50kg a.i./ha	155.3d	3.17d	19.7c	152.3c	143.7c
PL at 0.2t/ha + C at 1.25kg a.i./ha	155.3d	3.12d	19.7c	152.7c	143.3c
C at 2.50kg a.i./ha	131.7e	2.90e	12.0d	105.0d	120.3d
C at 1.25kg a.i./ha	101.3f	2.10f	6.8e	67.3e	91.7e
Control (no amendments)	79.7g	1.81g	4.3f	44.0f	66.7f

PL = Poultry litter.
C = Carbofuran.
[1]Means followed by the same letter in the same column do not differ significantly according to Fisher's LSD test (5%).

Experimental Title: Preliminary investigation on the ecology of Psyllids *Tyora tessmanni* (Aulmann) (Homoptera: Psyllidae) on Amelonado and F_3 Amazon Varieties of *Theobroma cacoa* in CRIN head-quarters, Ibadan. **(**Mokwunye, I.U., Asogwa, E.U., Anikwe, J.C and Okelana, F.A.)

Introduction

Damage by a number of insect pests has been one of the contributory factors for the decline in the yield of cocoa in Nigeria. Several insect pests have been recorded as economic pests of cocoa; these include the brown cocoa mirids, *Sahlbergella singularis*; the pod borer, *Characoma stictigrapta;* defoliators such as *Anomis Leona,* cocoa bollworm, *Earias biplaga* and various species of mealybugs. According to Igboekwe (1983), the cocoa psyllids, *Tyora tessmanni*, which was classified as minor pest have been observed as increasing in economic importance causing severe damage to cocoa when the population is high. It is found throughout the cocoa producing areas of Nigeria. It attacks the terminal buds, succulent shoots, leaf petiole swellings, flower stalks and young pods. Direct damage is caused by the insertion of eggs into buds, green shoots, leaf petiole swellings, flower stalks and young pods. Nymphs feed by piercing and sucking plant sap in the young leaf buds. This can cause death of the bud leading to defoliation of plant. According to Igboekwe (1983), it retard new leaf development. Both young and mature plants are attacked. It has been inferred that the high incidence of psyllids was responsible for high canopy degradation (Ndubuaku, 2001). It is against this backdrop that this investigation was carried out to ascertain the current pest status, their economic importance and their association with the ant species.

Materials and Methods:

Study site: The study was carried out at the Cocoa Research Institute of Nigeria (CRIN) Head-quarters in Idi-Ayunre, Ibadan, Nigeria. Ibadan has an annual average rainfall of 2000mm with a bimodal pattern. CRIN is located in the humid rainforest ecosystem with mean solar radiation of 18mj/m^2/day. It lies between the latitude 7º30'N and longitude 3º 54'E at an altitude of 200m above sea level.

Survey of psyllids: Fifty mature trees from Amelonado and F_3 Amazon varieties each were randomly selected and tagged. A monthly survey of psyllids on cocoa plots was conducted from the base to girth at breast height of 1.5m. Each cocoa plant was closely observed for psyllids around the trunks, branches, flower cushions, flowers, cherelles, chupons, leaves and pods. Records were taken on the number of trees with psyllids infestation and this was computed in percentage. The plant parts found to be infested by the insect was also noted and computed in percentage.

Survey of Ants species: This was set up to investigate the association between the psyllids and ant species. Sampling of ant species was also conducted alongside on a monthly basis from March 2009 to June 2009. Each cocoa plant was closely observed for any form of interaction between various ant species and the psyllids around the trunks, branches, flower cushions, flowers, cherelles, chupons, leaves and pods.

Result and Discussion

The psyllids, *Tyora tessmann,i* occurred throughout the period of survey on both Amelonado and Amazon varieties of cocoa. As shown on figure 1, Psyllids infestation was observed on 82% and 96% of the sampled trees for Amelonado and F_3

Amazon cocoa varieties respectively in April 2009. This was the highest so far and this period coincided with the flushing season in cocoa on which psyllids feed and oviposit. This is in agreement with the work of Igboekwe (1983), who reported a similar observation. The incidence of psyllids was lowest in March 2009 with only 2% of the trees attacked, closely followed by 16% recorded for June 2009 for both varieties. In Amelonado variety, 58% of sampled trees were infested with psyllids on new flushes in April 2009, while 50% of the sampled trees had psyllids on the terminal buds. A similar trend was also observed in the F_3 Amazon variety. Nymphs feed on young leaves in the bud thereby leading to death especially in the case of extremely high infestation. It was observed that ant species are possible predators of the psyllids. However, further studies will continue on the economic importance of the psyllid

Table 1: Percentage of Amelonado cocoa plant parts infested by *Tyora tessmanni* in CRIN, Ibadan.

Month	% of plant parts infested by psyllids				
	Bud	Flower Cherelles	chupons	Flushes	
March '09	2	0	0	0	0
April '09	50	6	0	12	58
May '09	10	4	0	0	14
June '09	2	8	2	0	6

Table 2: Percentage of F3 Amazon cocoa plant parts infested by *Tyora tessmanni* in CRIN, Ibadan.

Month	% of plant parts infested by psyllids				
	Bud	Flower Cherelles	chupons	Flushes	
March '09	4	0	0	0	0
April '09	38	24	4	20	68
May '09	2	26	0	2	10
June '09	16	26	0	0	6

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Experimental Title: Evaluation of insect pest and diseases among cocoa farmers in Edo state, Nigeria. **(**Uwagboe, E.O., Agbongiarhouyi, A.E, Adebiyi, S. Ndagi, I. and Aigbekaen, E.O)

Introduction

Annually, 30% of cocoa produced worldwide is lost to damage by insect pests and diseases (Lass, 2004). Nigeria is currently the fourth world producer of cocoa after Côte d' Ivoire, Ghana, and Indonesia (ICCO, 2007). Nigeria produced around 160,000 tonnes of cocoa in the 2006-2007 season, but current output is one-quarter lower than it was 30 years ago.(Akinwale, 2008). Smallholder farmers in Nigeria produce this cash crop, which have contributed to the economy of the country as foreign exchange earners and as sources of raw materials for local industries among which are cocoa industries, confectionery, beverage and winery industries (Oloruntoba, 1989). Yields of these crops are lower than those recorded in other countries where they are cultivated. One of the major reasons for the poor yield is diseases and insect pests, which have been estimated to cause 20-30% crop losses.

Black pod disease caused by *Phytophora. palmivora* and *P. megarkaya* is a major constraint to the cocoa production in West Africa countries including Nigeria (Flood *et al*., 2004). Losses can reach up to 100% of the cocoa production in smallholders' plantations when no control measures are taken (Despre´aux *et al*., 1988; Berry and Cilas, 1994). Capsids or Mirids cause a lot of lossess in cocoa farms, the most important species of capsids in Nigeria are *Distantiella theobroma* (Distant), *Sahlbergella singularis* (Haglund) and *Helopeltis* sp. (Wood and Lass, 1985; Acquaah, 1999).

Table 1.1: Recommended chemicals and their properties 1985-2008

Insecticides	Active ingredients
Actara 252 WP	Thiamethoxam
Fungicides	
Funguran-OH	Copper Hydroxide
Ridomil Gold Plus	Metalaxyl(M)+CuO
Champ DP	Copper Hydroxide
Nordox 75WP	
Coacobre Sandoz	Copper Oxide
Herbicides	
Touch Down Forte	Glyphosate
Round up	Glyphosate
Storage	
Actellic 25 EC	
Phostosin	

Source: Federal Ministry of Agriculture and Water resources (National
Cocoa Development Committee-NCDC 2008)

Cook (1986) reported that high crop yields can be achieved with sustainable agriculture if plants are protected from diseases and pests. This will make plants to grow well, take up nutrients, compete with weeds and yield to the limit of their environment. Therefore, small-scale farmers require crop protection measures that are cheap (so that farmers can afford them), simple (so that they can be applied under particular circumstances), cost-effective (so that they can enable farmers to make profits and prosper), and sustainable (so that the production is also sustained). Some of the recommended measures include use of resistant cultivars; pesticides, biological, cultural and physical controls have been directed with some practical success.

This study focuses on the assessment of major diseases and insect pests affecting cocoa farmers' farms and the measures adopted by farmers towards controlling these insects and diseases infestation in Edo state with the following objectives;
To ascertain the personal characteristics of the respondents in the study area.

To examine the farmers methods of controlling insect pests and diseases
To ascertain farmers' sources of information on the control of insect pests and diseases

Sampling Procedure and Survey

A total of 120 samples of cocoa farmers were interviewed individually in two Local Government Areas (Ovia North East and Ovia South West) in Edo state. In the LGAs, two villages (Igoumo and Iguobazuwa) were randomly selected while 60 farmers were sampled from each village giving a total of 120 farmers from the two LGA,s. A pre-survey was carried out for reliability test which was 0.88 and followed by a formal survey with thorough data collection from household heads with well structured questionnaire. Data collected include, socio-economic characteristics (age, sex, level of education and cocoa farming experience). Farmers' pest control methods and sources of information and revenue generated from cocoa farms. This paper focuses more on farmers' insect pests and disease control methods.

Analysis

Frequencies, percentages, charts and Chi-Square (X^2) were used for presentation and analysis of the data collected.

Results and Discussion

Table 1: Personal characteristics of the respondents

Characteristics	Frequency	Percentage
Sex		
Males	100	83.33
Females	20	16.67
Total	120	100.00
Age		
20-40	30	25.00
41-60	70	58.33
61-80	20	16.67
Total	120	100.00
Educational status		
Adult Education	8	6.67
Primary	47	39.17
Secondary	27	22.50
Tertiary	10	8.33
No formal Education	28	23.33
Total	120	100.00
Farming Experience		
1-20	51	42.50
21-40	61	50.83
41-60	8	6.67
Total	120	100.00

Findings in Table 1 indicates that most of the farmers (83.33%) are males while 16.67% are females, this implies that it is mostly men that are actively involved in cocoa production in the study area, though the female ones have their role to play especially in the processing of cocoa. According to Gockowski and Oduwole (2001), women long history in cocoa production across West Africa and the historical importance of cocoa production in southwest Nigeria warrant further study of women's access to resources for tree crop production. The restricted access to land resources for women should be among the focal points of such study. The study revealed that majority (83.33%) of the respondents are between 20 and 60 years which is prime age and it indicates that they are still active in cocoa farming and be able to perform pest control. In a study carried out by Amos (2007), he found out that age of farmers and age of farms reduce the efficiency level of cocoa farmers.

Education is a major factor that could influence farmers practices in this survey 76.67% of the respondents had formal education, mostly primary (39.17%) adult education (6.67%), secondary education (22.50%) and tertiary (8.33%) while 23.33% had no formal education which indicates that most of the respondents are educated and could easily adopt technologies transferred to them which will increase their income for carrying out insect pests and diseases control. According to Rogers (1983), education is thought to reduce the amount of complexity perceived in a technology thereby increasing a technology's adoption. .

In Table 1 majority (57.50%) of the respondents had more than 20 years experience in cocoa cultivation which translate into long experience. According to Olujide (2006) long experience of farmers is expected have positive effect on their knowledge about farm hygiene and the maintenance of cocoa trees. This experience

is important for day-to-day running of the farming activities which include insect pest and disease control.

Table 2: Frequency of Control measures for insect pest and diseases practiced by farmers (n=120)

Farmers' practices	Rarely	%	Frequently	%	Very frequently	%
Application of pesticides	8	6.67	12	10.00	96	80.00
Removal of diseased pods	72	60.00	32	26.67	18	15.00
Removal of broken pods	90	75.00	10	8.33	14	11.67
Removal of mistletoe	65	54.17	45	37.50	12	10.00
Pruning	80	66.67	28	23.33	14	11.67
Weeding	3	2.50	8	6.67	95	79.17

Table 2 showed the frequency of control measures of insect pest and diseases practiced by farmers. The majority of respondents (80.00%) frequently used pesticides as their control measures while very few (6.67%) claimed to rarely use pesticides. This implies that most farmers in the study area use other phytosanitary methods rarely but concentrate more on pesticides application. Majority (60.00%) of the respondents rarely remove diseased pods from the farm which could lead to spread of diseases in the farm. According to Wood and Lass (1985) and Akrofi *et al*., (2003) black pod spores may be spread through rain splashes by vectors such as ants, and by wind, with the newly infected pods (covered with sporangia) acting as infection sources for up to 14 days.

Majority(54.17%) of the respondents rarely remove mistletoe from their farms which is an indication that they do not practice phytosanitary regularly to reduce insect pests and diseases from their farms. Mistletoes obtain water and nourishment from the host plant (Polhill and Wiens, 1998). It causes damage of economic significance. Majority (66.67%) of the farmers rarely practice pruning which is a cultural method of pest management. Pruning is the removal of unwanted branches from cocoa tree. It is an important operation and can affect yield for months, even years, as well as affecting the shape and structure of the tree for the rest of its life. Pruning is an IPM technique and effective IPM requires regular field monitoring of pests conditions to identify the critical periods for application of a pesticide or other control measures (Adipala et al, 1999). Majority (79.17%) of the farmers practice manual weeding which indicates that labour availability for manual weeding is not a problem in the study area. Access to an adequate workforce at critical times during the growing season is important and, for most, the family remains the primary labour source. According to Eniola (1972), only a fifth of farmers in the Middle belt of Nigeria use hired labour because of availability of family labour.

Table 3: Types of pesticides used by the respondents (n-120)

Pesticides	Use before		Still using	
	Frequency	Percentage	Frequency	Percentage
Perenox	5	4.17	31	25.83
Cocobre sandox	2	1.67	7	5.83
Brestan	-	-	10	8.33
Copper sulphate	2	1.67	90	75.00
Bordeaux Mixture	-	-	7	5.83
Ridomil plus	2	10.53	64	53.33
Gammalin 20 EC	-	-	61	50.83
Unden	-	-	31	25.83
Basudin	1	0.83	73	60.83
Elucron	-	-	7	5.83
Dursban	1	0.83	-	-
Grammoxone	-	-	42	35.00
Gramorone	-	-	4	3.33
Asulux 40	-	-	1	0.83
Round up	-	-	14	11.67

Source: Field survey, 2009

Majority (75.00%) of the farmers still use Copper Sulphate (fungicide) while 50.83% are still using Gammalin 20 EC (insecticide) which is an indication that they lack

information on the use of recommended pesticides. According to Heong and Escalada (1997b); and Burleigh *et al.*, (1998) observed relatively few scientific papers address farmers' pesticide use patterns, which in many cases in developing countries is a major component of pest management. The use of chemical pesticides (copper and metalaxyl-based fungicides) is short term solutions, but generally most reliable and popular with farmers because of their quick, effective action. But it is now known that with non-target effects and resistance of the pathogen, the risks to human lives and to the environment is so great that there is no longer any question about the necessity for changing to crop protection techniques which are less dependent on chemicals (Sengooba, 1992).

According to Mosudi (2008) the residue analysis of the blood of some farmers involved in his study in south western Nigeria had residues of diazinon, endosulfan, propoxur and lindane in their blood. The aforementioned insecticides are the chemicals used by the farmers for mirid control on their cacao farms. This is indicative of occupational exposure to Endosulfan, lindane, diazinon and propoxur which are all WHO Category II insecticides ((WHO, 1992; Pesticide News, 2000a). Since farms, which do not apply chemical input, have been able to maintain some level of profitability, extensive farmers should be encouraged to try to get a higher price for their product, which could actually be called 'organic cocoa'. Farmers, who apply chemical inputs, must consider the aspect of profit making and quality of cocoa due to chemical residues in the product, coupled with the problem of environmental pollution through chemicals (Opeyemi, 2005).

Table 4: Sources of information on insect pest and diseases control (n=120**)**

Sources of information	Frequency	Percentage
Other farmers	40	33.33
Children of farmers	5	4.17
Radio	25	20.83
Cooperative Association	34	28.33
CRIN	-	-
NGO Extension Agents	3	2.50
ADP Extension Agents	6	5.00
Television	10	8.33
Newspapers	7	5.83
Agricultural Exhibition shows	8	6.67

Source: Field survey, 2009.

Many (33.33%) of the respondents obtain information from other farmers who could be among the educated farmers and also those that have attended training workshop on cocoa protection. Acquisition of information about a new technology demystifies it and makes it more available to farmers. Information reduces the uncertainty about a technology's performance hence may change individual's assessment from purely subjective to objective over time (Caswell et al., 2001)

Table 5: Constraints experienced in insect pests and disease control

Constraints5	Frequency	Percentage
1. Inadequate contact with extension agents	77	64.17
2. High cost of pesticides	84	70.00
3. Inadequate knowledge on pest control	88	73.33
4. Poor access to source of recommended pesticides	110	91.66
5. Inadequate information on improved methods of pest control	112	93.33
6. Lack of IPM information	120	100.00

Source: Field survey, 2009

None of them have information on IPM and this requires training for the farmers. Most (93.33%) of the farmers do not have knowledge about modern practices in the control of insect pests and diseases. One of the major constraints upon establishing an IPM programme is the lack of adequate

information about farmers' Knowledge, Perceptions and Practices (KPP) in pest management (Heong, 1985; Teng, 1987). Acquisition of information about a new technology demystifies it and makes it more available to farmers. Information reduces the uncertainty about a technology's performance hence may change individual's assessment from purely subjective to objective over time (Caswell et al., 2001). Exposure to information about new technologies as such significantly affects farmers' choices about it. Feder and Slade (1984) indicate how, provided a technology is profitable, increased information induces its adoption. However in the case where experience within the general population about a specific technology is limited, more information induces negative attitudes towards its adoption, probably because more information exposes an even bigger information vacuum hence increasing the risk associated with it.

Information is acquired through informal sources like the media, extension personnel, visits, meetings, and farm organizations and through formal education. It is important that this information be reliable, consistent and accurate. Thus, the right mix of information properties for a particular technology is needed for effectiveness in its impact on adoption.

Table 6: Relationship between education and method of weeding

Variable	Df	X^2 Value	P	Decision	CC
Education	8	20.132	0.0098	S	0.50

Source: Field survey, 2009

There is a significant relationship between the educational status of the respondents and method of weeding. This indicates that level of education determine the type of weeding methods of the respondents. (X^2=20.132, P=0.0098)

Conclusion and Recommendations

The study revealed that mostly men are actively involved in cocoa production in the study area, though the female ones have their role to play especially in the processing of cocoa. Most of the respondents are educated and could easily adopt technologies transferred to them which will increase their income for carrying out insect pests and diseases control. Majority of the respondents rarely carry out phytosanitation thereby depending so much on pesticides.Training of the farmers on the use of Integrated Pest Management for pests control is highly imperative to enhance reduction in the use of pesticides and increase farmers yield.

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Experimental Title: Assessment of adoption of CRIN improved cocoa varieties in Nigeria. (Adebiyi, S., Uwagboe, E.O., Agbongiarhouyi, A.E,. Ndagi, I. and Aigbekaen, E.O)

Introduction

Cocoa was specifically introduced into Nigeria through the Spanish Island, Fermando Po in 1887 (Ayorinde, 1966) when a local chief (Squiss Ibaningo) established a plantation at Bonny in the then Eastern region. Government of Nigeria developed an interest in the cultivation of cocoa since 1887 when cocoa seedlings from the old Botanic Garden at Ebute Metta (Lagos) were sent up-country (Ibadan) for trial (Opeke, 1987). This explains why cocoa cultivation gained its first and earliest impetus around Ibadan, Oyo State of Nigeria. It latter spread to various parts of Western Nigeria through various sources such as trade agents, Ministries of Agriculture, Research Institutes among others. (Opeke, 1987).

Cocoa, one of the five mandate crops of CRIN, has had an unlimited research breakthroughs in terms of production of cocoa that is tolerant to pests and diseases, early maturing and improved production and productivity. The Amelonado, variety which was first introduced to Nigeria, has the characteristics of low production per hectare, late maturity and susceptible to pests and diseases (Opeke, 2006). The introduction of Amazon in 1944 from West Indies had contributed immensely to cocoa industry due to its resistant to pests and diseases, early maturing of cocoa trees and high productivity per hectare (Badaru and Aikpopodion, 2000).

The National Cocoa Development Committee (NCDC) was established in 1999 with the mandate to rehabilitate old and moribund cocoa farms. The overall objective to increase the country's cocoa production. For the realization of the objective of the committee, CRIN played a vital role as the improved varieties are being supplied from the Institute to all cocoa producing states. These are Ondo, Cross-River, Osun, Oyo, Ekiti and Ogun. Others include Edo, Kwara, Akwa Ibom, Abia, Kogi, Delta, Taraba and Adamawa. Hence, the rate at which the Institute will supply the improved varieties will depend on her production capacity. Therefore, it is the focus of this study to assess the Institute's capacity to produce improved cocoa varieties to stakeholders and the level at which farmers adopt the improved varieties. Specifically, the study intends to determine the level of production of improved cocoa varieties in CRIN Headquarters and to determine the level of adoption of CRIN developed cocoa varieties.

Hypotheses

(i) There is no significant relationship between the cocoa pods produced and the adoption of improved cocoa varieties in CRIN, and

(ii) There is no significant relationship between cocoa pods production and the number of processed cocoa pods in CRIN.

Methodology

The study was carried out at the headquarters of Cocoa Research Institute of Nigeria in Ibadan, Oyo State. Secondary data was used for the study and the information was obtained from the Economics and Statistics Group of the Institute (CRIN). Some of the information collected include total number of cocoa pods produced by the Institute, total number of cocoa pods issued out for farmers for planting on their farms (this however is taken as a proxy to the adoption of CRIN improved cocoa varieties), total number of cocoa pods processed to beans by the Institute and total dry weight of the

processed beans. The information was collected between January and March, 2006 and the data collected covered a period of sixteen years (1990 – 2005). Descriptive statistics was used to show the trend of cocoa production as well as the trend of the number of pods of improved cocoa varieties issued out to the farmers for adoption on their farms.

Correlation analysis was used to analyse the relationship between the total cocoa pods produced and the number of cocoa pods issued out for adoption, as well as the relationship between the total cocoa pods produced and the dry weight of the processed cocoa beans.

Results and Discussion

Level of Improved Cocoa Varieties Production in CRIN

Table 1 shows that improved cocoa pods produced increases steadily from the first period (1990 - 1993) to the last period (2002 – 2005). Hence, there's continuous growth in improved cocoa production during the period under investigation. However, the highest improved cocoa varieties' production was recorded in the period (2002 – 2005) when 35.13% of the total production was recorded. The lowest production was during the period 1990 – 1993 when there was a record of 12.59% of the total production. It could also be observed in Table 1 that the dry weight of the processed cocoa beans followed the same trend.

The highest dry weight was recorded in the period 2002 – 2005 while the least dry weight was during 1990 – 1993 period. The implication of these findings is that few pods of improved cocoa varieties would be available for issuance to farmers for adoption on their farms during 1990 – 1993 periods while more pods would be available for farmers adoption during 2002 – 2005 period.

Level of Adoption of Improved Cocoa Varieties

Table 2 showed that the highest number of cocoa pods (67.39%) was issued out during the period 2002 – 2005 and the least was in the period 1990 – 1993 when only 3.33% was issued out. It could, however, be discovered that there is a progressive increase in the number of cocoa pods issued out from the first period to the last period (except during the period 1998 – 2001). However, the highest adoption was made in the period 2002 – 2005 when 67.39% of the total adoption during the period was made.

Table 3 showed that there is a weak relationship between the total pods produced and the number of pods issued out ($r=0.293$). However, there is a positive relationship between them, showing that as the number of total pods produced is increasing, the number of issued out pods is as well increasing. Statistically, there is no significant difference between the total pods produced and the number of pods issued out (t calculated being lesser than t tabulated) at 5% significant level. It could also be observed in Table 3 that, there is a very strong positive relationship between the total pods produced and the dry weight of the processed cocoa beans ($r = 0.908$). Also, there is significant difference between them (t calculated > t tabulated) at 5% significant level.

Table 1: Level of Production of Improved Cocoa Varieties in CRIN

Period	Total No. of Pods Produced	% Over of the Total Production	Dry weight of Processed Cocoa Beans	% Over the Total dry Weight
1990 – 1993	670,058	12.59	14,856.9	9.21
1994 – 1997	1,350,084	25.38	40,865.9	25.33
1998 – 2001	1,431,206	26.90	49,476.0	30.67
2002 – 2005	1,869,037	35.13	56,108.2	34.79
Total	**5,320,385**	**100.00**	**161,306.9**	**100.00**

Source: *Economics & Statistics Group, CRIN, Ibadan (2006)*

Table 2: Level of Adoption of Improved Cocoa Varieties

Period	Total number of Pods Issued out	% Over the Total Pods Issued
1990 – 1993	13,537	3.33
1994 – 1997	69,282	16.99
1998 – 2001	50,118	12.29
2002 – 2005	274,717	67.39
Total	**407,654**	**100.00**

Source: *Economics & Statistics Group, CRIN, Ibadan (2006).*

Table 3: Correlation Analysis between total pods produced and the number of pods issued out to farmers; total pods produced and the dry weight of the processed cocoa beans.

	R	T-cal	t tab	df	Decision
Pods issued out	0.293	1.147	2.98	14	NS
Beans dry weight	0.923	8.976	2.98	14	S

Source: *Field Survey, 2006.*

Conclusion

There's a progressive increase in improved cocoa production during the period investigated. However, the highest production was recorded in the period 202 – 2005 when 35.13% of the total production was recorded. Meanwhile, the lease production (12.59%) was during 1990 – 1993 period. It was also discovered from the findings that the highest number of pods was issued out to farmers during the period 2002 – 2005, then, 67.39% of the total number of pods issued out was recorded during the period. t test showed that there was no significant difference between them (t calculated < t tabulated) at 5% significant level). Correlation analysis also showed that there was a very strong relationship between the total pods produced and the dry weight of the processed beans. (r = 0.923), and therefore, and there's significant relationship between them (t calculated > t tabulated) at 5% level of significant.

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CASHEW PROGRAMME

Experimental Title: Assessment of pest and diseases of cashew management practices in Kogi State, Nigeria. (Adebiyi, S., Ndagi, I., Uwagboe, E.O., Agbongiarhouyi, A.E, and Aigbekaen, E.O)

Introduction

Cashew (*Anacardium occidentale*) is a native of Central and South America presently. Cashew is grown in many parts of the world and the world production of cashew nut (which is the main product) is about 400,000 tonnes .(Opeke 2005).

Cashew perform very poorly in areas with excessive winds and suffer considerable damage from wind by mutilation of the canopy, though, study revealed that harmattan winds are injurious to good production in cashew. However, cashew grow well from sea level up to an altitude of 1200m.

Cashew plants are relatively free of diseases, though, mature trees are very hardly but the young seedlings are generally susceptible to pest and diseases. Pest and diseases constitute limiting factors in production of cashew in cashew producing region of Nigeria because the environment is conducive to the growth and multiplication of pest and diseases attacking the different tree crop species in the country. The recommended method of controlling them is by both cultural and chemical methods. (Olunloyo 1987) Opined that cashew inflorescent is susceptible to diseases because of its irregular and prolonged flowering which will necessitate multiple chemical spraying of the flowers. The need for cashew farmers to address pests and diseases management problem becomes essential in order to improve productivity of cashew in Nigeria. It is in this light that this study was conducted to assess cashew farmers pests and diseases management practices in Kogi state of Nigeria.

Objectives of the Study

The general objectives of the study was to ascertain the pests and disease management practices by cashew farmers in the study area.

The specific objectives are to:

1. ascertain the socio economic – characteristics of the respondents.
2. determine the pests and the diseases affecting cashew in the study area.
3. determine methods used in controlling pests and diseases in the study area.
4. determine the information sources of the respondents.

Hypothesis of the Study

There is no significant relationship between some selected socio – economic characteristics of farmers and cashew farmers pests and diseases managements practices in the area.

Methodology

The study was carried out in Kogi State of Nigeria. Two Local Government Areas were purposively selected due to the facts that they are known for cashew production. The two local governments selected were Ankpa and Dekina local government areas. Forty farmers were selected by random sampling across each of the local government areas making a total of eighty respondents for the entire study area. With structured questionnaires, data were collected and analyzed with the use of descriptive statistics and chi – square analysis.

Results and Discussion.

Table 1 showed that 88.6 percent of the respondents were between the age of 46 years and above. While, 11.4 percent were between the age group of 26 years and 45 years. The distribution based on gender classification revealed that 75.9 percent were male while 24.1 were female. Also, majority of the respondents (98.7 percent)

were married, while 51.9 percent did not attend school. 64.6 percent took farming as their primary occupation. While 82.3 percent had spent above 15 years in cashew production which implied that majority of the farmers had long time cashew framing experience. As showed in table 2, majority (97.5 percent) had at least 4ha of cashew farms which show that they were medium and large scale cashew farmers. The farmers revealed that 91.1 percent used both family and hired labour , while 96.2 percent depended on personal savings. There was poor extension visit as 59.5 percent were not visited at all. Table 6 also revealed that only 40.5 percent got information from research institution, while 24.1 percent got information through friends and neigbours. Table 7 revealed that cashew stem Girdler was the most common pest, while few complained of Red bonded trips, Leaf Rollers, Fruit pierching and Flower beetles. It was also revealed that disease such as Seedling wilt, Leaf Scab, and Immature Fruit drop were not common in the area. Table 8 revealed that 62.0 percent did not control pests and diseases, 31.6 percent used cultural method while, only 6.3 percent used chemical and biological methods.

Test of Hypothesis

The Chi – square analysis of selected socio-economic characteristics of respondents and pests and diseases managements practices. Table 9 revealed that Age (p=0.01), educational status (p=0.04), and main occupation of respondents (p=0.001), showed significant level of association with pests and diseases management practices. This implied that all the variables mentioned were the determinant factors for pests and diseases management practices in the study area.

Table 1: Socio-Economic Characteristics of Respondents.

Variable Categories	Frequency	Percentage
Age:		
26 – 35	3	3.8
36 – 40	6	7.6
46 – 55	23	29.1
56 – 65	30	38.0
Above 65	17	21.5
Total	**79**	**100.0**
Mean age 58 years.		
Gender:		
Male	60	75.9
Female	19	24.1
Total	**79**	**100.0**
Religion:		
Christianity	63	79.8
Muslim	16	20.2
Total	**79**	**100.0**
Marital Status:		
Single	-	-
Married	78	98.7
Widowed	1	1.3
Total	**79**	**100.0**
Educational status:		
No formal education	41	51.9
Adult Education	5	6.3
Primary Education	13	16.5
Secondary Education	18	22.8
Tertiary Education	2	2.5
Total	**79**	**100.0**
Primary Occupation		
Farming	51	64.6
Trading	12	15.2
Artisan	11	13.9
Civil Servant	5	6.3
Total	**79**	**100.0**

Source: Field survey, 2008

Table 2: Cashew Farming Experience of respondents

Year	Frequency	Percentage
1 – 5 years	9	11.4
6 – 10 years	56	70.9
11 – 15 years	9	11.4
Above 15 years	5	6.3
Total	**79**	**100.0**

Source: Field survey, 2008.

Table 3: Distribution based on farm size of cashew

Farm size(Ha)	Frequency	Percentage
1 – 3	2	2.5
4 – 6	24	30.4
7 – 9	32	40.5
10 and above	21	26.6
Total	**79**	**100.0**

Source: Field survey, 2008.

Table 4: Distribution based on sources of farm labour

Labour source	Frequency	Percentage
Family member only	1	1.3
Family+ Hired Labour	72	91.1
Hired Labour only	1	1.3
Communal Lbour	4	5.0
Hired and communal	1	1.3
Total	**79**	**100.0**

Source: Field Survey, 2008.

Table 5: Distribution based on source of finance of respondents

Finance source	Frequency	Percentage
Personal Saving	76	96.2
Bank loan	-	-
Cooperative Society	-	-
Friend and neighbours	3	3.8
Total	**79**	**100.0**

Source: Field Survey, 2008.

Table 6: Distribution based on extension Agents visits

Extension Agents	Frequency	Percentage
Fortnightly	-	-
Quarterly	-	-
Occasionally	32	40.5
Never	47	59.5
Total	**79**	**100.0**

Source: Field survey, 2008.

Table 7: Distribution based on source of information

Source of information	Frequency	Percentage
CRIN Scientists	32	40.5
Cashew Farmers Association	22	27.8
Radio and Television	6	7.6
Friends and Neighbour	19	24.1
Total	**79**	**100.0**

Source: Field survey, 2008.

Table 8: Distribution based on pest and Diseases affecting Cashew.

Pests	Freq.	Percentage	Diseases	Freq	Percent
Cashew Stem Girdlers	79	100.0	Seedling Wilt	4	5.1
Red Bonded Trips	3	3.8	Leaf Scab	13	16.5
Fruit Piercing	9	11.4	Immatured Fruit Drop	2	2.5
Flower Beetles	5	4.0	Fruit Rot	6	7.6

Multiple Responses

Source: Field survey, 2008

Table 9: Distribution based on the methods used in pest and diseases control

Methods	Frequency	Percentage
Chemical	3	3.8
Biological	2	2.5
Cultural	25	31.6
None	49	62.0
Total	**79**	**100**

Source: Field survey, 2008.

Table 10: Chi – Square analysis of selected socio-economic characteristics of respondents on pest and diseases management practices

Variable	Df	Contingency Coefficient	P value	Decision
Marital Status	3	0.321	0.64	NS
Age	5	0.023	0.01	S
Sex	1	0.46	0.72	NS
Educational Status	5	0.71	0.04	S
Major Occupation	3	0.40	0.001	S
Years of Faming	2	0.45	0.88	NS

Source: Field survey, 2008**.**
Significant Level (P = 0.05)

Conclusion

The study ascertained the pest and diseases management practices carried out by the farmers in Kogi state. However, forty cashew framers were selected from each of the major cashew producing local government areas to make a total of eighty cashew farmers as sample size for the study. The study revealed that majority of the respondents were already old with high cashew experience. The study concludes that pests and diseases management practices in the area was low, while chemical and biological methods of pests and diseases control were not the common practice by the respondents. Finally, it was revealed that significant association exist between Age, educational status, main occupation and pests and diseases management practices among farmers study areas.

Recommendations

-Training should be organized for cashew farmers on the use of various methods to control pests and diseases affecting cashew in the study areas.

-Youth in the study area should be encouraged to engage in Agriculture through provision of social amenities similar to what is obtainable in the cities to the cashew producing areas.

-Various organization such as Cashew Farmers Association of Nigeria should establish proper linkage and increase the frequency of information to demonstrate the importance of pest and diseases control in cashew farms.\

-Farmers should organize themselves to form cooperative society to assist them to have assess to credit facilities.

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KOLA PROGRAMME

Experimental Title: Assessing kola farmers' participation in group organizations in Osun and Edo State**. (**Agbongiarhuoyi A.E., Uwagboe, E..O., Adebiyi, S. Ndagi, I. and Aigbekaen E.O)

Introduction

Kola is an important socio-economic and cultural commodity crop in Nigeria. The tree is evergreen and grows to a moderate height from 25m-30m and belongs to tropical genus of the family Sterculiaceae. Two major species: *Cola nitida L* (*Gbanja* or *Goro)* and *Cola acuminata L* (*Abata)* are widely cultivated in Nigeria. The Cocoa Research Institute of Nigeria (CRIN), Ibadan developed products such as kola wine, chocolate from kola, liquid detergent and organic fertilizer from kola nut pod husks (Famuyiwa, 1987 and Yahaya *et al,* 2001). Kola nuts are widely consumed in West and central Africa as a masticator to counter fatigue, suppress thirst and hunger and are believed to enhance intellectual capacity. There is a company at Iseyin in Oyo State which currently produces Kola nut wine known as Dee Champagne and Sparkling wine which, are being exported overseas and served in Nigerian Embassies abroad. Kola-nut is offered in birth and naming ceremonies as acknowledgment of concern to visitors. The current annual production of kola nut in Nigeria rages from 85,000 to 127,000 metric tonnes (Ologunagba, 2009).

In the Kola sub-sector, most farmers are not well organized into farmers' groups which could assist them in raising fund for members in farming activities, getting access to inputs, credit and marketing their produce. Many farmers in recent times are nonchalant in joining existing organizations where their resources are supposed to be pulled together to solve a common problem and achieve the organizational goal. Retrospectively, an assessment of Agricultural problems in Nigeria may suggest that farmers' Associations especially cooperative movement are not living to expectations. This may have been associated with lack of integrity in the membership ranks which had destroyed mutual confidence in the societies without which farmers could access agricultural credit (Kehinde *et al,* 2009). The existing amount of literature on the contributions of local groups in planning, monitoring and evaluation of projects qualify them as basic social institutions for agricultural rural development. Some farmers in cooperative associations in Oyo State Nigeria were found to function well as agents, medium and target of change for agricultural extension in their domains. On the contrary, Abdullah *et al* (2003) observe that the basic activities of farmers' organizations (FOs) in Duadawa and Tafoki Local Government Areas (LGAs) of Kastina State shows that most of them are in their amorphous stage of development and have not done much in fulfilling their missions of increasing

members' access to farm inputs and technical services or embarking on a sound income generating activities.

Despite the proliferations of farmers associations in Nigeria, our peasant farmers including kola producers are still faced with unfavourable production environment. Farmers groups such as cooperative society for instance, are essentially aimed at improving the socio-economic variables of its members (Akinbode, 1973). Irrespective of the importance of these groups to farmers' welfare, membership size has not been encouraging. Some authorities opined that it is because such groups are of little or insignificant values to its members (Ajakaiye, 1991). It is against this backdrop that the study focused on these objectives.

Objectives: The major objective is to asses Kola farmers' participation in group organizations in Osun and Edo State. The specific objectives are to:

1. describe the personal characteristics of kola farmers;
2. examine the membership and non-membership of kola farmers' organizations;
3. ascertain the reasons while farmers do not belong to group organizations;
4. identify the main business of kola farmers groups by members in the study areas and
5. determine the constraints encountered by members of farmers' organizations in producing kola.

Methodology:

The study was conducted in Osun and Edo State. Osun State occupies a land mass of approximately 8,602 square kilometers carved out of the old Oyo State. The state is bounded on the west by Oyo State, Ondo and Ekiti States in the east, Kwara State in the north and Ogun State in the south. Agriculture is the traditional occupation of the people of the state. Edo State is bounded on the north and the east by Kogi State, on the west by Ondo State and on the south by Delta State. Agriculture is the predominant occupation of the people. With the exception of Rubber in Edo, Cocoa, oil palm and Kola are some of the cash crops produced in the two States.

Sampling Procedure:

A total of seventy respondents were interviewed through purposive random sampling in the two states. Fifty farmers (respondents) from Ife South and Atakomosa West Local Government Areas (LGAs) of Osun State were sampled while twenty respondents were from Ovia South LGA of Edo State. The reason for this is that Osun State produces more kola than Edo State. Descriptive statistics was used to describe the personal characteristics of respondents, membership and non-membership of kola farmers' organizations, reasons while farmers do not belong to group organizations, constraints encountered by members of farmers' organizations in producing kola and the main business of kola farmers groups by members in the study areas.

Result and Discussion

Personal Characteristics of Respondents

Results from table 1 showed that average age of respondents from Osun and Edo State was 52 years. Many of them (38.6%) were between 40-49 years, indicating that they were still within the active group in kola production. Most (75.7%) of the farmers were male and minority (24.3%) were female. Majority of the farmers (94.2%) were married while others were single (2.9%) and divorced 2.9%. Ekong (2003) also found that the large proportion of married respondents could be an essential factor facilitating household farming activities. Close to half of the respondents (44.3%) had no formal education, (15%) had secondary and (10%) respectively. With good level of literacy, there is opportunity for the farmers to understand the workings

of their associations and maximally benefit from membership of the group. Most (35.7) of the members and non-members of farmers' groups had more years of farming experience of 21-30 years in kola production. This gives an indication of the practical skill and knowledge the respondents must have acquired in kola activities in the study area.

Type of Farmer and Farm Size Planted to Kola

In table 2, small scale farmers (95.7%) were more than the medium producers. This finding is in consonance with the research work of OJo and Ehinmowo (2010) that a larger proportion of kola producers operate on a small-scale. Many of the farmers (47.1%) cultivated less than 2 hectares of kola in Osun and Edo State. The implication is that small holder farmers were predominant in kola production.

Farmers' Organizations in Kola Production

Table 3 showed that more than half (52.9%) of the respondents from the two states: Osun and Edo States claimed to be members of different organizations apart from kola related groups. The type of associations they belonged to were cooperative societies (42.9%) with some (31.4%) ordinary members while non-members were high (94.3%). The next was those who belonged to Township union meeting (22.9%) having (15.7%) of ordinary members while many of the respondents (77.1%) were not members. Few members (11.4%) belonged to Traders Association with 8.6% of them ordinary members without any position. The non-membership also formed the highest 88.6%. Kolanut association of Nigeria (KOLAN) and All farmers' Association of Nigeria (AFAN) witnessed low patronage of members' participation of 5.7% respectively. Again, most (94.3%) were non-members. The result in table 3 indicated that many of the respondents were not members of Farmers' Associations even though general membership figures was high but their membership participation was seen mainly in cooperative society. Kolanut Association, which supposed to champion more of kola business and activities for members, had poor participation. This situation calls for intervention from philanthropic individuals, Non-Governmental Organizations (NGOs), private and public agencies to assist in supporting farmers groups.

Reasons for not belonging to Farmers' Organizations

Table 4 showed the reasons why respondents did not belong to farmers association in the study areas. The main reason for not joining association in respect of kola production is that many (40%) of the respondents did not derive benefit from group formation. It means that farmers' organizations need to be adequately strengthened to assist farmers with needed inputs for farming activities.

Main business of Farmers' Organizations

The main business (27.1%) of farmers' groups in kola production in the study areas is farming and credit (Table 5). It means that most of the respondents were interested in pulling their resources for farming activities and credit purposes.

Constraints Encountered by Members of Farmers' Organizations in Producing Kola

In table 6, the major constraint faced by group membership in producing kola in Osun and Edo state is lack of loan for members amounting to 47.1%. This is a limiting factor because farmers require loan or financial assistance to facilitate their production practices.

Table 1: Kola farmers' personal characteristics

Variables	Frequency	Percentage	Mean
Age (years)			
30-39	7	10.0	51.87
40-49	27	38.6	
50-59	14	20.0	
60-69	17	24.3	
> 70	5	7.10	
Sex			
Male	53	75.7	
Female	17	24.3	
Marital status			
Married	66	94.2	
Single	2	2.90	
Divorced	2	2.90	
Educational status			
No formal Education	31	44.3	
Primary	21	30.0	
Secondary	11	15.7	
Tertiary	7	10.0	
Farming Experience			23.92
(years)	4	5.70	
< 10	25	35.7	
10-20	30	42.8	
21-30	8	11.4	
31-40	3	4.20	
> 40			

Table 2: Type of farmer and farm size planted to kola

Variable	Frequency	Percentage
Type of farmer		
Medium scale	3	4.2
Small scale	67	95.7
Farm size (ha)		
0.1-0.8	16	22.9
0.9-1.6	33	47.1
1.7-2.4	14	20.0
> 2.4	7	10.0

Table 3: Farmers' Organizations in Kola production

Farmers' organizations	Member	Non-member
Belonging to any Association	37(52.9)	33(47.1)
Types of Association		
Kola nut Association of Nigeria (KOLAN)	4(5.70)	66(94.3)
Ordinary member	4(5.70)	66(94.3)
Cooperative society	30(42.9)	40(57.1)
Ordinary member	22(31.4)	40(57.1)
Executive member	8(11.4)	66(94.3)
All farmers Association of Nigeria (AFAN)	4(5.70)	66(94.3)
	3(4.3)	66(94.3)
Ordinary member	1(1.4)	-
Executive member	8(11.4)	62(88.6)
Traders Association	6(8.6)	62(88.6)
Ordinary member	2(2.9)	62(88.6)
Executive member	16(22.9)	54(77.1)
Township Union meeting	11(15.7	54(77.1)
Ordinary member	5(7.1)	-
Executive member		

Figures in parentheses are in percentages

Table 4: Reasons for not belonging to farmers' organizations.

Reasons	Frequency	Percentage
Association not functioning	2	2.8
	28	40
No benefit	3	4.2
No interest		

Table 5: Main business of farmers' Organizations.

Business of Associations	Frequency	Percentage
For credit only	13	18.6
Farming and credit	19	27.1
Farming and marketing	5	7.1

Table 6: Constraints

Constraints	Not a constraint	Minor	Major
i Dishonesty among officers	11(15.7)	16(22.9)	10(14.3)
ii Inadequate information within members	11(15.7)	23(32.9)	3(4.30)
iii Diversion of group fund	13(18.6)	20(28.6)	4(5.70)
iv Political party interest	17(24.3)	14(20.0)	6(8.60)
v Lack of loan for members	-	-	37(47.1)

Conclusion:

The study showed that farm sizes of both members and non-members of farmers associations was less than 2 ha. They were from small farm holdings. Many of the respondents participated in different associations but cooperative society was mainly patronized by members. The non-members of all the different groups were high due to no benefit from them in Osun and Edo state in terms of kola production. The participation from one or more groups was largely constrained by paucity of loan for members. It is evident from the study that the main business of the groups identified was farming and credit in kola production. It is therefore recommended that cooperative society where membership is of a reasonable proportion be empowered through well managed self help finances. Relevant stakeholders from private and public enterprises could assist farmers' associations by providing them with revolving loans and credit facilities. This would encourage better membership involvement and enhance kola production among farmers in the study areas.

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LIBRARY DIVISION

The main function of the institute library is to meet information need of scientists and other users such as tertiary institution users and other stakeholders. Few books, periodicals and other publications were purchased. The institute library was re-organised due to its movement from old library to ERLS building in November 2008. Lanteel and other electronic resouirces were acquired to the library, OPAC was also introduced. Library photocopier served as a sources of internally generated revenue for the institute. Newspapers were bought and released to the readers.

INTERNAL AUDIT REPORT

Head, Internal Audit (Fabowale, K .M)

Audit of the financial and non-financial activities of the Cocoa Research Institute of Nigeria (CRIN) for the financial year 2009 were done on a continuous basis for the purpose of ensuring compliance with financial and other regulations and reduce the chances of errors and frauds.

HEADQUARTERS:

The records of accounts maintained in various banks by the Institute were checked. All project accounts, imprest accounts, records of stores, records kept at the health centre, records kept at the Institute's rest house, activities and records of sales at the Sales and Marketing Section were all checked for the year under review.

Procurement of items was done in accordance with the procurement procedures and items purchased were physically sighted before they are used.

Salaries and Allowances, Duty Tour Allowances and other personal allowances were paid as appropriate and in accordance with the applicable rates.

Pensioners were paid their retirement dues in the year as appropriate and the B.O.T records were checked.

SUBSTATIONS:

Revenue generated by the six (6) substations (Owena, Uhonmora, Ochaja, Ibeku, Ikom and Mambilla stations) were made quarterly by all the stations. Headquarters' copies of

the quarterly returns were checked and physical audit visit carried out to all the stations for the 2009 financial year.

CONCLUSION:
Some observations were made and the attention of the Officer/Department concerned called to the necessary amendments which were done.
In the absence of any material misstatement the financial and non-financial activities of the Institute for the year 2009 was well conducted and complied with all relevant laws.

PLANTATION AND ESTATE MANAGEMENT

I INTRODUCTION

There are three (3) major units in the plantation and management section namely:

UNIT I – This consists of seven zones where plantations of CRIN mandate crops with the exception of Tea are situated. The total hectare is 266.75

UNIT II – Consists of the Ground Maintenance which is involved in:
The government maintenance of Institute' Internal and External environment
Propagation and maintenance of Horticultural/ornamental plants
Landscape design

UNIT III – Fementary – this section deals with the fermentation and drying of cocoa beans, depulping and drying of coffee berries etc.

II DETAILED REPORT OF ACTIVITIES CARRIED OUT IN THE YEAR

1) Establishment of more hectrage of cocoa plantations

In the year 2008, twelve hectares (12ha) of new cocoa plantation was established. Each zone established two hectares (2ha). If not for our strong determination to achieve this, it wouldn't have been possible with the inadequate supply of manpower and tools; in year 2009, we were able to prepare 12hactres' of land for the planting of cocoa stand but due to lack of fund to purchase plantain suckers only seven hectares of land of cocoa plantation was established. Plantain suckers were difficult to be removed from the previous year's plantations because of logging (i.e. falling of the main sucker).

2) Maintenance and opening of abandoned plots

The older and newly established cocoa plantations and plantation of other scheduled crops (cashew, coffee and kola) were adequately maintained. The new plantations were weed free and adequately watered during the dry season, but towards the end of the last quarter (December) they suffered from water stress due to inadequate fund to supply water. It was very painful some jourguetted ones were affected.
The increase in manpower in the last quarter enable us to open up and sanitized abandoned plantations, which invariably increased crop yield (360,829), pods were harvested in 2009 while 293,406 was realized in 2008. Trees were felled where necessary. In fact all the zonal leaders were anxious to receive the IMC to witness the beauty of the plantations and the effect of adequate supply of labour. If at least three quarters of the work force added to us

during the 2009 last quarter can be maintained, then we will have NEW CRIN.

3) Establishment of cocoa nursery

Seedlings were expected to be supplied by the central nursery but to avoid transportation constraints at the time of distribution during the planting season this was added to the activities in various zones. It also afforded us to practice what we preach to the farmer's i.e. the nursery must be very close to the plantation.

4) Supply of missing stands

Missing stands of cocoa and plantain suckers were supplied. The closeness of our cocoa nurseries to the zones really helped.

Weeding

This was adequately done throughout the year. The plantations and the Institutes Internal and External environment experienced perfect sanitation especially at the last quarter of the year when we received favour of adequate supply of labour. The supply of herbicide was better than the previous years and this also helped in the sanitation. The BCOO plot in Moor Plantation Ibadan was not left out. Slashers and mowers were available for usage but lack of fund and repair/services especially during the 1st 3quarters faulty ones deprived us their usage to the maximum. This needed to be addressed.

Watering

The young cocoa plants (2008 and 2009 establishment) were adequately watered and the left over seedling in our nurseries were not left out.

Rehabilitations of cocoa plant

Selected moribund/abandoned cocoa plots were rehabilitated and reopened in various zones.

Pruning

The branches of plants in the plantations were done to effect aeration thus encouraging better yield and biological control of black pod disease.

Cutting of fire traces

This activities is very important and I ensured it done at the right time. It "adequacy and the grace of God prevented the usual history of fire outbreak in zones since I took over the leadership of plantation and estate management in year 2007 till date.

Removal of mistletoe

This exercise was perfectly done especially the year under review

Establishment and maintenance of research plots

Adequate labour was supply to perform the following activities in research plots situated in zones 1, 2, 5, 6, 8 and 9 and at times around the office complex – slashing, felling and cross cutting of forestry trees, marking out and pegging, holing, weeding, coppicing of coffee trees, fertilizer application, harvesting, filling of poly bags with topsoil, cutting of traces and data collection.

Maintenance and beautification of the whole estate

This aspect of our activities demanded a lot of labour but herbicides were applied to substitute a little, more herbicides and spraying pumps as well as manpower are

required for effective maintenance. In fact the quarters (both junior and senior quarters) were not left out. Some trees along the roads were felled. Masquerade plants were planted from the main gate to the canteen area. We hope to extend it to the road along the office complex. The frontage was also beautified. The maintenance is extended to the Health centre road sides from the gate to the central nursery etc.

Harvesting and processing of viable farm produce for sales and research purpose

Harvesting especially of cocoa pods is done weekly, transported to the PEM breaking point and fermentry unit, cocoa pods were fermented and dried, coffee berries depulped and dried while cashew fruits were detached from the nuts and air dried. Kola is being harvested and processed in zone 7 unit. All the processed farm produce were sent to the marketing section for sales. There is plan to start processing of palm oil from our palm fruits instead of selling fruits. This will boost the Institute revenue.

Re-establishment of Horticultural garden

This gradually took off as soon as I assumed duty in 2007 at the back of the security post at the main gate of the Institute. The old horticulture garden is being rehabilitated to attain a standard horticultural section if adequate fund is provided. Vegetables (Amaranthus sp, soko, okro and ewedu) were raised and sold to members of staff.

A day with P/M

This involves unexpected visitation to the various zones by the Plantation Manager from 8.00a.m till 1.00p.m. This afforded me the opportunity of touching every plot in the zones there by identified the production and maintenance status.
I supervised the workers' activities and effected uniformity in the quantity and quality of job distribution. It was a period to counsel and encourage the workers on their job.

CONSTRAINTS/CHALLENGES

Some of the constraints highlighted in previous year were addressed by the management, but the following still need to be considered:

Inadequate supply of labour: As earlier mentioned, mass supply of labour in the last quarter of the year 2009 contributed to the successful re-opening/rehabilitation of abandoned plots and increase in crop yield, but their recruitment lasted for just 3 months.

Suggested solution: At least one hundred and fifty casual workers should be added to the existing work force.

This will enable the section to re-open more abandoned plots bearing viable crops and maintain the already opened ones.

Inaccessibility to usage of vehicle/tractor:

Suggested solution: It is highly necessary to provide tractor with attached trailer for the transportation of farm produce and other farm tools and implements. Provision of Hilux will be appreciated to enable the P/M to touch the nooks and corner of the various zones and BCOO plot at Ibadan throughout the season, the movement of personal pleasure care is limited due to the fragility.

Insufficient provision of farm tools: Slasher, mowers, tables and chairs, low stools are also required for sitting on to break cocoa pods.

Delay in prompt payment of wages: If the small wages is paid as at when due to casual workers will be encouraged to work more and labour will be available/sourced ready within the locality.

Deployment of experienced field staff to administrative section: After the conversion exercise of field casuals to staff, many experienced, field hands were deployed to the administrative department leading to dearth of experienced field staff. This has greatly affected the efficiency and work output on the field.

Suggested solution: Redeployment of the affected workers to the field.

Prompt release of fund

The non/late release of fund has greatly affected progress/success in the field. Example is:

Non-release of fund to purchase plantation sucker that led to inability to plant the total 12ha opened for 2009 cocoa planting.

Late release of money to purchase water for watering of young cocoa plants on the field which has greatly affected the survival rate.

OWENA SUB-STATION

HEAD OF STATION – (O. S. IBIREMO)

Staff strength – The Staff list at the sub-substation during the year as at December was 21as stated below.

S/N	NAMES	OWENA	IDANRE	IBULE	ONISERE	TOTAL
1	Chief Research Officer	1				1
2	Higher Agric Supt.	1		1		2
3	Admin Officer	1				1
4	Head Security Officers	2				2
5	Senior Clerical Officer	1				1
6	Motor /Tractor Driver	1				1
7	Security Officers	2		1		3
8	Health Assistant	1				1
9	Assistant Clerical Officers	2				2
10	Field Overseers				1	1
11	Driver	1				1
12	Field Attendants	2	1	2		5
	Total	15	1	4	1	21

Mrs. Fagite, who was a Chief Typist retired during the year followed by Mrs. Adediran a Chief Clerical Officer. Mr. Ojedeji was transferred from Ibule back to Headquarters (Ibadan). Mr. Suraju, an Admin officer was transferred from Headquarters to the station. Also Mr. Adubi, a security officer, was transferred from Uhonmora to the station. Two assistance clerical officers and a security officer were also appointed for the station.

Obituary- The stations Higher Executive Officer, Mr. Tope, who was the accountant of the station passed on in January 14th 2009.

Labour- The station has sixteen casual workers at the station, that is, Owena main station and the outstations. Twelve at Owena, three at Ibule and one at Onisere.

Security- The station has five securities; four at main station and one at Ibule outstation and four casual staff.

Revenue- The sum of five hundred and sixty two thousand, one hundred and sixty naira only (562,160) was realized from sales of farm produce and other services. The break-down is as shown in the table below.

S/N	ITEMS	1ST QUARTERS	2ND QUARTERS	3RD QUARTERS	4TH QUARTERS	TOTAL
		₦	₦	₦	₦	₦
1	Cocoa Beans	12,800	138,250	31,310	36,620	218,980
2	Cocoa Pod	3,000		600	2,400	6,000
3	Agbalumo	500				500
4	Ogbono	500		1,000		1,500
5	Fine on Illegal Felling of Economic Trees			90,000	10,000	100,000
6	Plantain Suckers			4,000		4,000
7	Plantain			1,200		1,200
8	Rent(Payroll)	27,500	27,500	23,250	23,250	101,250
9	Rent (Tenant)	7,550	15,200	9,450	2,750	34,950
10	Electricity (Payroll)	11,440	11,040	13,650	13,950	50,080
11	Electricity(Tenant)	5,550	12,900	7,950	6,050	32,450
12	Rest House	750	250	1,250		2,250
13	Tractor Service	3,000		6,000		9,000
	TOTAL	72,590	204,890	189,660	95,020	562,160

General maintenance of plantation- Though the population of the casuals workers increased from 5 to 11, still much could not be done. But few labours were hired from nearest village (daily paid). The situation was fair.

Illegal felling- During the year illegal felling of trees was very alarming, though the case was reported but nothing was done to stop it.

Research activities

An experiment was carried out on effect of Sidalco Liquid fertilizer on the performance of mature Cocoa and on the growth of Cocoa seedling in Nigeria.

Experiment on psyllid on Cocoa this was carried out by a lady researcher from entomology dept at headquarters.

Two other experimental sites were established by Mr. Ayegboyin and Mrs. Iloyanomon (researchers) from headquarters.

Weather record – This was not taken because the equipments were bad.

Renovations

The car park was renovated.

The road from the office to the quarters was renovated.

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