

**CROP PRODUCTION
GUIDE**

Handbook for the Extension Worker

CROP PRODUCTION GUIDE

1974

Handbook for the Extension Worker

IDENTIFICATION

Name

Town

P.O. Box Region

Telephone No. Motorcycle No.....

Country

CROP PRODUCTION GUIDE
Handbook for the Extension Worker

by
GHANAIAN-GERMAN
AGRIC. DEVELOPMENT PROJECT NORTHERN AND UPPER REGIONS
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Preface

The purpose of this Production Guide is to assist Extension Officers in helping farmers to increase their farm production and net income. The Guide has been prepared in such a way that it is hoped it will prove to be a practical book of reference, and easy to use, for Extension Officers in their daily activities. The Guide should assist Extension Officers (1) in identifying practical farm problems and (2) to help Officers show or suggest to the farmers practical means, to solve or reduce some of their problems.

Agro-economic data are provided as general background information and amassed in one place such important Extension Information as (1) rainfall data, (2) information on soils, (3) present cropping patterns and anticipated yields, (4) present recommendation on cultural practices and fertilizer-use for selected crops, and (5) practical information regarding different systems of land preparation (handhoe, bullock farming, tractor mechanization).

While the Guide is production orientated other types of practical information are also provided. For example, information is included on the construction of inexpensive farm storage facilities, methods of improved storage, marketing, and sources of fertilizer, improved seeds, credit, tools, equipment, etc. Data on weights and measures, plus conversion tables are also presented. The Guide was prepared by the staff of the Ghanaian-German Agricultural Development Project which serves the Northern and Upper Regions. Acknowledgement is also made to numerous people outside the Project who have contributed to the preparation of this Guide.

Revision of this Guide is anticipated as more knowledge and experience are accumulated. It is hoped that Extension Officers will provide the Project with "feedback" regarding their use of the Guide. Any suggestion or recommendation that may be useful for the preparation of the next edition will be very much appreciated.

PROJECT MANAGER
GHANAIAN-GERMAN AGRICULTURAL DEVELOPMENT
PROJECT — DEPARTMENT OF AGRICULTURE
POST OFFICE BOX 171, TAMALE

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Calendar 1973

	January	February	March
Sunday	7 14 21 28	4 11 18 25	4 11 18 25
Monday	1 8 15 22 29	5 12 19 26	5 12 19 26
Tuesday	2 9 16 23 30	6 13 20 27	6 13 20 27
Wednesday	3 10 17 24 31	7 14 21 28	7 14 21 28
Thursday	4 11 18 25	1 8 15 22	1 8 15 22 29
Friday	5 12 19 26	2 9 16 23	2 9 16 23 30
Saturday	6 13 20 27	3 10 17 24	3 10 17 24 31
	April	May	June
Sunday	1 8 15 22 29	6 13 20 27	3 10 17 24
Monday	2 9 16 23 30	7 14 21 28	4 11 18 25
Tuesday	3 10 17 24	1 8 15 22 29	5 12 19 26
Wednesday	4 11 18 25	2 9 16 23 30	6 13 20 27
Thursday	5 12 19 26	3 10 17 24 31	7 14 21 28
Friday	6 13 20 27	4 11 18 25	1 8 15 22 29
Saturday	7 14 21 28	5 12 19 26	2 9 16 23 30
	July	August	September
Sunday	1 8 15 22 29	5 12 19 26	2 9 16 23 30
Monday	2 9 16 23 30	6 13 20 27	3 10 17 24
Tuesday	3 10 17 24 31	7 14 21 28	4 11 18 25
Wednesday	4 11 18 25	1 8 15 22 29	5 12 19 26
Thursday	5 12 19 26	2 9 16 23 30	6 13 20 27
Friday	6 13 20 27	3 10 17 24 31	7 14 21 28
Saturday	7 14 21 28	4 11 18 25	1 8 15 22 29
	October	November	December
Sunday	7 14 21 28	4 11 18 25	2 9 16 23 30
Monday	1 8 15 22 29	5 12 19 26	3 10 17 24 31
Tuesday	2 9 16 23 30	6 13 20 27	4 11 18 25
Wednesday	3 10 17 24 31	7 14 21 28	5 12 19 26
Thursday	4 11 18 25	1 8 15 22 29	6 13 20 27
Friday	5 12 19 26	2 9 16 23 30	7 14 21 28
Saturday	6 13 20 27	3 10 17 24	1 8 15 22 29

Public Holidays: 01.01. New Year's Day; 01.06. Epiphany; 01.13. Ghana Redemption Day; 03.06. Ghana Independence Day; 04.20. Good Friday; 04.23. Easter Monday; 05.31. Ascension Day; 06.11. Whit Monday; 08.06. Bank Holiday; 11.29. St. Andrew's Day; 12.25. Christmas Day; 12.26. Boxing Day.

Ghana

Ghana is situated right in the center of West Africa. It is surrounded on West, North and East by Ivory Coast, Upper Volta and Togo respectively. In the South it borders upon the Atlantic Ocean. The coastline extends East to West for about 330 miles. The total area of Ghana is 92 873 square miles.

In Ghana tropical climate is dominating. Characteristics are heavy rainfall in May-Juni and in September-October and the period of no rain in January-February. Northern Ghana is strongly influenced during dry season by Harmattan which comes from Sahara bringing warm and dry air.

Physically, the country is divided into three main regions: the Coastal Plain, the Akwapim and Togoland Ranges with the highest point of Ghana, the Afadjato (2 900 feet) and the northern Plains. Ghana is mainly drained by her principal river, the White Volta and its tributaries, the Red Volta, the Black Volta, Kulpawn and the Afram. Other important rivers are the Pra, Tano, Ofin, Ankobra, Densu and Todzie. The two largest lakes are the man-made Volta Lake and Lake Bosumtwi. The latter is situated 20 miles south-east of Kumasi.

Ghana's economy is mainly based on agriculture. About 70 per cent of the country's labour resources are employed in agriculture. Sheep, goats and poultry provide a good deal of food. There are various fruit-trees, such as avocado-pears, oranges, papaw, bananas, which in many cases grow wild in the forest. Cocoa-growing is the principal occupation in the forest belt and Ghana is by the way the world's most important cocoa producer.

Along the coast the chief occupation is fishing, farming and stock-breeding. New fishing methods, involving outboard motors, trawlers and large fishingboats with marine engines are now employed in order to increase the annual catch of fish.

In the northern savannas, agriculture is almost entirely confined to the cultivation of cereals and other crops like yam, cotton, groundnuts and legumes. There is also considerable live-stock to be found.

Compared to the rest of Africa, Ghana is quite densely populated, the total population is about 8 545 600 inhabitants. The

population distribution is as follows: Ashanti Region 1 477 400; Brong-Ahafo Region 762 700; Central Region 892 600; Eastern Region 1 262 900; Greater Accra Region 848 800; Northern Region 728 600; Upper Region 857 300; Volta Region 947 000; Western Region 768 300.

About 52 per cent of the total population is between 15 and 65 years of age, 3 per cent over 65 years and about 45 per cent under 15 years.

The country's trunk road mileage covers over 9 000 miles of which over 4 000 miles are now bitumen surfaced. In addition, over 18 000 miles of motorable roads are maintained by regional organisations and municipal authorities. Ghana's railway-lines are important transporting media for the country's natural resources, such as cocoa, logs, sawn timber and minerals.

But Ghana is not only exporting raw material, she also has developed her own industry in various parts of the country. Since Ghana has hydro-electric power from the Volta River there is good potential for more economic independence. Ghana is also famous for mineral wealth, especially gold, bitumen, asbestos, limestone, bauxite, diamond and manganese.

Ghana possesses no natural harbours. The first deep water-harbour of Ghana was opened at Takoradi in 1928 and not until 1951 did Ghana construct another man-made harbour at Tema. The Black Star Line Ltd. and since 1969 the Volta Lines Ltd. operate a considerable number of Yessels.

There are four airports in Ghana, situated at Accra, Kumasi, Takoradi and Tamale. Ghana Airways Company operates all interal services as well as international services.

In Ghana, English is the official as well as the commercial language. There are also several African languages and dialects spoken. The main local languages are Twi, Fanti, Ga, Ewe, Dagbani, Hausa and Nzima.

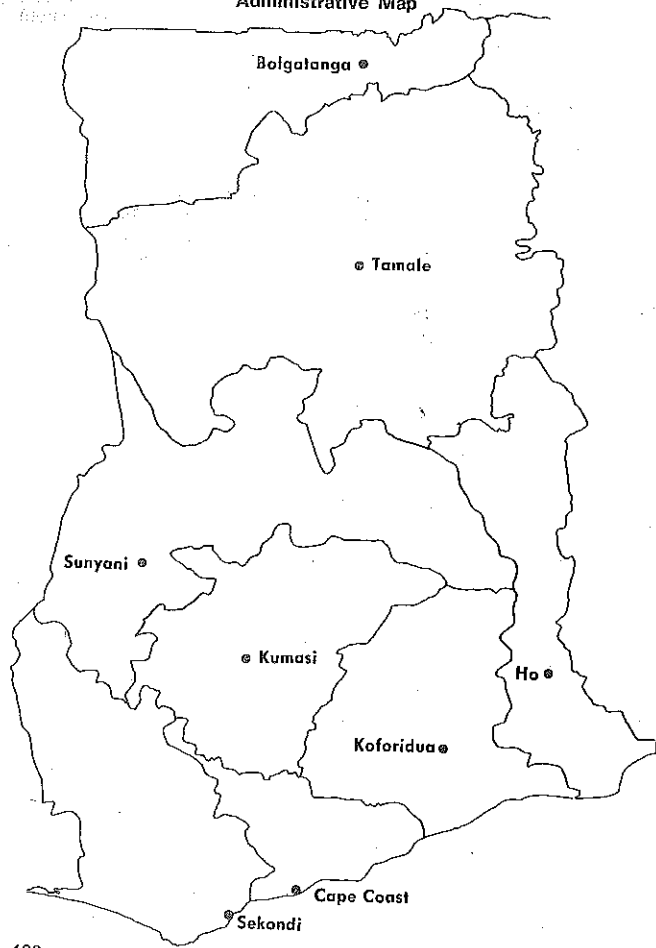
The school system comprises primary school of six years duration, followed by a secondary school course of five years. Primary and secondary schools in 1970 numbered about 44 342. There are now 118 secondary schools, 11 Government technical institutes and 102 Teacher Training-Colleges in the country. There are also three State Universities: the University of Ghana,

Legon; the University of Science and Technology at Kumasi; and University of Cape Coast. Primary and secondary school education is provided free of charge by the Gogernment.

Mail service is established all over the country. Automatic telephone exchanges operate in Accra as well as in other big cities. There is also an international telex-system which provides service between Accra and London.

Ghana obviously is a country which is changing quickly and therefore this short introduction does not endeavour to give all the necessary information concerning the country, rather this short report only attempts to offer an insight into its resources, activities and the potential of the people of Ghana.

Administrative Map



Cropping Calendar N. R.

MONTH	JAN.	FEB.	MAR.	APR.	MAY.	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.
CROP												
RICE					
MAIZE					
GROUNDNUTS					
YAM					
EARLY MILLET					
LATE MILLET					
GUINEA CORN					
COTTON					
KEY: LAND PREPARATION											
BASIC FERTILIZER APPLICATION & PLANTING											
WEEDING											
FERTILIZER TOP DRESSING											
HARVESTING											

NORTHERN & UPPER REGION
AGRICULTURAL DISTRICTS



RAINFALL (mm) IN TAMALE 1961-72

	Jan.	Febr.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1961	0.0	0.0	53.3	70.6	103.4	160.8	144.0	120.1	149.4	20.5	0.0	0.0
1962	0.0	7.4	26.7	70.0	85.9	256.5	115.1	218.7	221.0	57.9	90.7	8.9
1963	0.0	27.7	15.0	133.6	98.0	163.6	207.5	389.9	386.3	243.3	0.3	0.0
1964	0.0	0.0	139.7	36.8	139.2	161.3	108.0	84.1	340.1	36.1	4.3	4.3
1965	18.0	1.0	14.7	132.1	125.4	314.5	126.0	347.0	223.8	77.0	0.0	0.0
1966	0.0	0.0	62.0	89.4	91.3	128.3	103.3	229.6	146.3	139.7	0.5	0.0
1967	0.0	22.1	63.0	98.3	127.5	178.6	130.6	311.4	153.9	38.4	4.6	5.6
1968	0.0	35.8	120.2	133.6	95.3	228.6	245.1	229.6	296.9	82.6	0.0	0.0
1969	0.0	5.6	36.8	104.2	70.2	69.0	154.2	194.6	186.5	72.4	72.0	0.0
1970	27.7	0.0	10.4	3.0	49.5	67.6	124.5	296.2	225.8	19.3	13.5	0.0
1971	0.0	14.5	145.3	85.6	184.4	75.9	154.7	144.5	321.6	74.2	0.0	1.5
1972	2.5	5.1	51.3	85.1	108.7	133.9	125.5	206.5	238.8	82.6	0.0	0.0