FEED THE FUTURE
The U.S. Government's Global Hunger & Food Security Initiative

Brochure

AGRO-INPUT PACKAGES FOR THE GAMBIA

PAIRED led by CORAF EnGRAIS

USAID FROM THE AMERICAN PEOPLE

CEDEAO ECOWAS

CORAF

IFDC Developing Agriculture from the Ground Up

Introduction

Poor agricultural productivity in West African countries and Chad is partly related to the insufficient use of suitable agricultural inputs, including improved seed varieties and appropriate fertilizers. Indeed, it is generally said that in this region the rate of coverage of quality certified seed requirements is still around 25% and that the average amount of nutrients used in ECOWAS region is about 17 kg/ha of nutrients less than half of the 50 kg/ha set to be achieved by 2015 as advocated by the Abuja Summit of June 2006, below the 24 kg/ha of nutrients on average for Africa and far below the world average of 123 kg per hectare of nutrients. Among the many reasons that have caused this situation is the poor availability and accessibility of quality inputs and poor access to agricultural extensions services, to knowledge and in short to accurate information about agricultural inputs.

The Feed the Future Partnership for Agricultural Research, Education and Development (PAIRED) and Enhancing Growth through Regional Agricultural Inputs Systems (EnGRAIS) are two, five-year (2017-2022 and 2018-2023, respectively) projects funded by the United States Agency for International Development West Africa Regional Mission (USAID/WA) and implemented by the West and Central African Council for Agricultural Research and Development (CORAF) and the International Fertilizer Development Center (IFDC), respectively. PAIRED and EnGRAIS, within the framework of their close cooperation and backed by their implementers, have a common objective to develop and make available to West African producers and other agricultural sector actors both agricultural input packages (AIPs) and an online platform as decision making tools. The AIPs contain information on locally adapted improved seeds, appropriate fertilizers, and information on good agricultural practices (GAPs) specific to each crop variety and agro-ecological zone (AEZ) across West Africa and Chad designed to boost agricultural yields and productivity.

EnGRAIS and PAIRED projects, have a common objective that aims to develop and make available to producers in West Africa AIPs and an online platform that will enable the actors of the agricultural sector to have information on improved seeds, appropriate fertilizer recommendations and GAPs for the main crops of the region according to the different AEZs to boost agricultural yields and productivity. To this end, they have developed AIPs and the Fertilizer and Seed Recommendations for West Africa Map, (FeSeRWAM) platform (www.feserwam.org). The FeSeRWAM platform is the successor of the Fertilizer recommendations for West Africa Map, (FeRWAM), and will be deployed online as well as the associated AIPs, to be available to all stakeholders. The AIPs are embedded in the FeSeRWAM platform, accessible online via internet, cell phones, computers and several other means of dissemination are planned.

EnGRAIS and PAIRED to ensure that access to online documents is not a hindrance for the main targets which are private and public extension agents, fertilizer, and seed dealers have decided to produce these catalogs that can be used in the field to sensitize, advise and train the end users which are farmers. Therefore, country catalogs have been developed and a regional catalog which partly covers the region for this first version but whose goal is to cover all the countries of

the ECOWAS area, Chad, and Mauritania. These country catalogs and the regional one is of course likely to be revised periodically to consider new technologies but also the demand of the beneficiaries.

In the country as well as regional booklet, the AIPs are organized by crop. The booklet is a synthesis of the most relevant technical information with some illustrations to guide the technicians in their dialogue with the producers so that, depending on his specific locality, the producer can produce efficiently through judicious choices of crops seed/varieties, appropriate fertilizers, GAP's and have a good technical instruction that will guide them to obtain optimal production. For this reason, the AIP booklet provides information on the Crop (varieties, varietal characteristics, local names, performance, and resistance to various constraints), Fertilizer (nutrient recommendations, type of fertilizer, rates, periods, mode of application and appropriate organic fertilizer) , Crop Management (tillage, water management, weed management, crop residue management, management of organic manure and organo-mineral amendments), and the Locality(regional AEZ, country AEZ, specific locations and many other relevant information).

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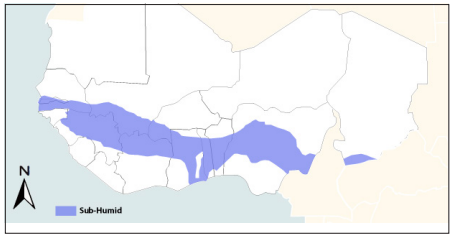
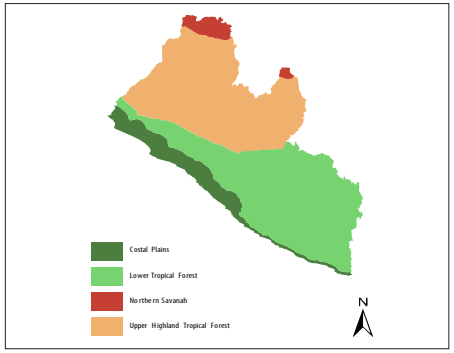
AGRO-INPUT PACKAGE

CASSAVA/THE GAMBIA



WEST AFRICA AGRO-ECOLOGICAL ZONE
SUB-HUMID



COUNTRY-SPECIFIC AGRO-ECOLOGICAL ZONE
GUINEAN ZONE
Isohyet range (mm/per year) -

DESCRIPTION

Crop	Cassava
Variety name	TMS 98/0505
Local name	
Synonym	
Variety Type	Pure Line
Quantity of seed (kg/ hectare)	60
seed unit	kg/ha
Spacing	1.0m x 1.0m
Grain/Flesh Color	White/Cream
Planting / Sowing Time	September
Production System	Rainfed
Number of days from sowing / planting to maturity	240-360
Potential Yield	20.0-25.0 tonnes/ha
country average	20.0-25.0 tonnes/ha
Pest resistance	
Disease resistance	
Other stresses	Resistance to ACMV, Cassava mealy bugs
Nutritional quality	
Other qualities	Good for gari and fufu. Resistant to drought

NUTRIENT RECOMMENDATION

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ORGANIC FERTILIZER RECOMMENDATION

Add manure

FERTILIZER SPECIFICATION

Application rate:	200 kg of NPK 6-20-10 (4 bags x 50 kg /ha)
Time of Application:	1 month after planting

GOOD AGRICULTURAL PRACTICES (GAP) & MANAGEMENT

Soil and Water Conservation Techniques	Apply mulch to conserve soil and moisture
Method of fertilizer application	Side Placement by burying
Soil Amendments	Add organic manure when available and necessary
Water Management	Rainfed
Pest &Disease Management	Control pest when necessary
Weed Control	Manual weeding and Chemical
Cropping System	Monocrop or intercropping with other crops like maize, millet or sorghum

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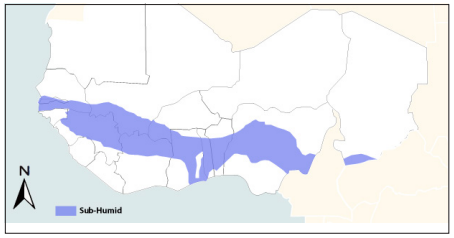
AGRO-INPUT PACKAGE

CASSAVA/THE GAMBIA



WEST AFRICA AGRO-ECOLOGICAL ZONE
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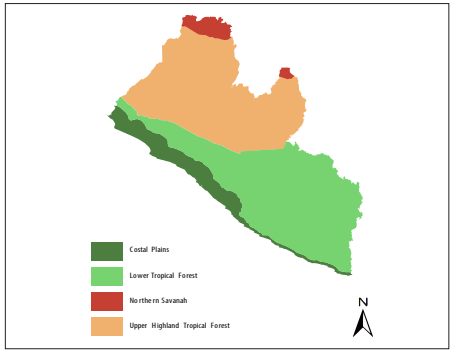

COUNTRY-SPECIFIC AGRO-ECOLOGICAL ZONE
GUINEAN ZONE
Isohyet range (mm/per year) -

DESCRIPTION

Crop	Cassava
Variety name	TMS 91/02312
Local name	
Synonym	
Variety Type	Pure Line
Quantity of seed (kg/ hectare)	60
seed unit	kg/ha
Spacing	1.0m x 1.0m
Grain/Flesh Color	White/Cream
Planting / Sowing Time	September
Production System	Rainfed
Number of days from sowing / planting to maturity	240-360
Potential Yield	20.0-25.0 tonnes/ha
country average	20.0-25.0 tonnes/ha
Pest resistance	
Disease resistance	
Other stresses	Resistance to ACMV, Cassava mealy bugs
Nutritional quality	
Other qualities	Grown in all season (dry & wet), use as Gari, Fufu. Resistant to drought.

NUTRIENT RECOMMENDATION

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ORGANIC FERTILIZER RECOMMENDATION

Add manure

FERTILIZER SPECIFICATION

Application rate:	200 kg of NPK 6-20-10 (4 bags x 50 kg /ha)
Time of Application:	1 month after planting

GOOD AGRICULTURAL PRACTICES (GAP) & MANAGEMENT

Soil and Water Conservation Techniques	Apply mulch to conserve soil and moisture
Method of fertilizer application	Side Placement by burying
Soil Amendments	Add organic manure when available and necessary
Water Management	Rainfed
Pest &Disease Management	Control pest when necessary
Weed Control	Manual weeding and Chemical
Cropping System	Monocrop or intercropping with other crops like maize, millet or sorghum

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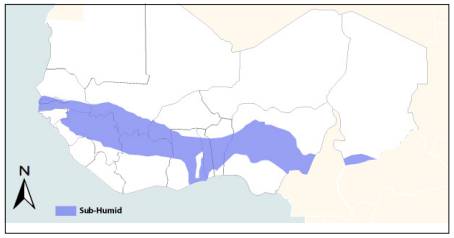
AGRO-INPUT PACKAGE

COWPEA/THE GAMBIA



WEST AFRICA AGRO-ECOLOGICAL ZONE
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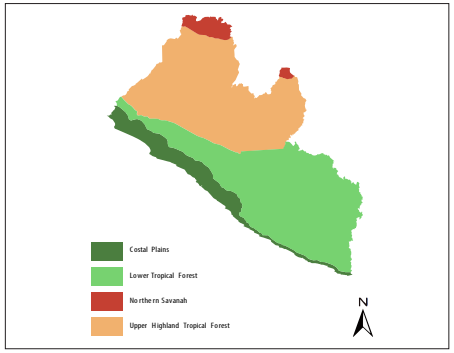

COUNTRY-SPECIFIC AGRO-ECOLOGICAL ZONE
SUDANIAN ZONE
Isohyet range (mm/per year) -

DESCRIPTION

Crop	Cowpea
Variety name	Asontem-Red
Local name	
Synonym	
Variety Type	Pure Line
Quantity of seed (kg/ hectare)	15-25
seed unit	kg/ha
Spacing	0.5m x 0.25m
Grain/Flesh Color	Red testa with white eye
Planting / Sowing Time	August
Production System	Rainfed
Number of days from sowing / planting to maturity	65
Potential Yield	1.5 tonnes/ha
country average	1.5 tonnes/ha
Pest resistance	
Disease resistance	
Other stresses	
Nutritional quality	
Other qualities	Early maturing

NUTRIENT RECOMMENDATION

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ORGANIC FERTILIZER RECOMMENDATION

Add manure

FERTILIZER SPECIFICATION

Application rate:	150 kg of NPK 6-20-10 (3 bags x 50 kg /ha)
Time of Application:	2 weeks after sowing

GOOD AGRICULTURAL PRACTICES (GAP) & MANAGEMENT

Soil and Water Conservation Techniques	Apply mulch
Method of fertilizer application	Side placement, ring placement
Soil Amendments	Application of organic matter is recommended
Water Management	Cowpea is adapted to warm weather and requires less rainfall than most crops. It is particularly tolerant of drought during vegetative growth.
Pest &Disease Management	If a pre-emergence herbicide such as Pendimethalin
Weed Control	Weeding should be done by the second week after sowing , although this depends on the type of weeds present and how well the land was prepared
Cropping System	Sole cropping, In rotation with cereals or intercrop with cereals

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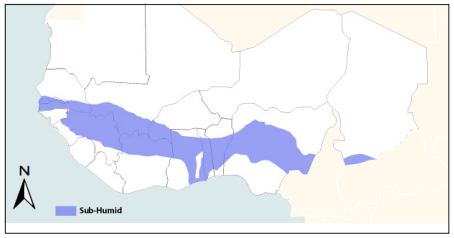
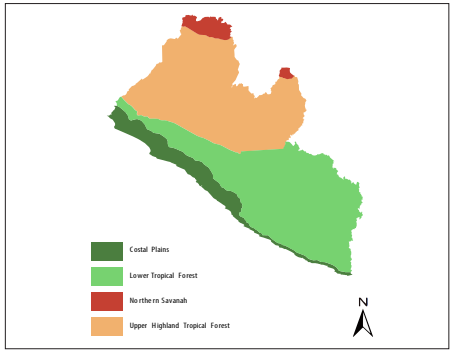
COWPEA/THE GAMBIA



WEST AFRICA AGRO-ECOLOGICAL ZONE
SUB-HUMID



COUNTRY-SPECIFIC AGRO-ECOLOGICAL ZONE
SUDANIAN ZONE
Isohyet range (mm/per year) -

DESCRIPTION

Crop	Cowpea
Variety name	Mougne
Local name	
Synonym	
Variety Type	Pure Line
Quantity of seed (kg/ hectare)	15-25
seed unit	kg/ha
Spacing	0.5m x 0.25m
Grain/Flesh Color	Mottle
Planting / Sowing Time	August
Production System	Rainfed
Number of days from sowing / planting to maturity	80
Potential Yield	1.5 tonnes/ha
country average	1.5 tonnes/ha
Pest resistance	
Disease resistance	
Other stresses	
Nutritional quality	
Other qualities	Medium Maturing, Rough seed coat, high yielding

NUTRIENT RECOMMENDATION

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ORGANIC FERTILIZER RECOMMENDATION

Add manure

FERTILIZER SPECIFICATION

Application rate:	150 kg of NPK 6-20-10 (3 bags x 50 kg /ha)
Time of Application:	2 weeks after sowing

GOOD AGRICULTURAL PRACTICES (GAP) & MANAGEMENT

Soil and Water Conservation Techniques	Apply mulch
Method of fertilizer application	Side placement, ring placement
Soil Amendments	Application of organic matter is recommended
Water Management	Cowpea is adapted to warm weather and requires less rainfall than most crops. It is particularly tolerant of drought during vegetative growth.
Pest &Disease Management	If a pre-emergence herbicide such as Pendimethalin
Weed Control	Weeding should be done by the second week after sowing , although this depends on the type of weeds present and how well the land was prepared
Cropping System	Sole cropping, In rotation with cereals or intercrop with cereals

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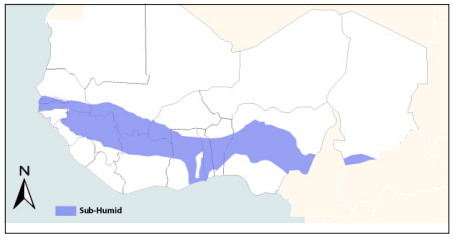
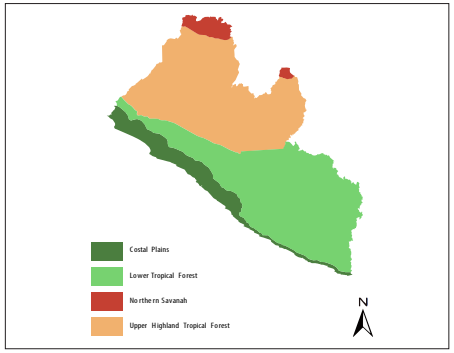
COWPEA/THE GAMBIA



WEST AFRICA AGRO-ECOLOGICAL ZONE
SUB-HUMID



COUNTRY-SPECIFIC AGRO-ECOLOGICAL ZONE
SUDANIAN ZONE
Isohyet range (mm/per year) -

DESCRIPTION

Crop	Cowpea
Variety name	Yasin
Local name	
Synonym	
Variety Type	Pure Line
Quantity of seed (kg/ hectare)	15-25
seed unit	kg/ha
Spacing	0.5m x 0.25m
Grain/Flesh Color	Brown with white eye
Planting / Sowing Time	August
Production System	Rainfed
Number of days from sowing / planting to maturity	70
Potential Yield	1.5 tonnes/ha
country average	1.5 tonnes/ha
Pest resistance	
Disease resistance	
Other stresses	
Nutritional quality	
Other qualities	Early maturing, high yielding, rough seed coat. Resistant to drought

NUTRIENT RECOMMENDATION

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ORGANIC FERTILIZER RECOMMENDATION

Add manure

FERTILIZER SPECIFICATION

Application rate:	150 kg of NPK 6-20-10 (3 bags x 50 kg /ha)
Time of Application:	2 weeks after sowing

GOOD AGRICULTURAL PRACTICES (GAP) & MANAGEMENT

Soil and Water Conservation Techniques	Apply mulch
Method of fertilizer application	Side placement, ring placement
Soil Amendments	Application of organic matter is recommended
Water Management	Cowpea is adapted to warm weather and requires less rainfall than most crops. It is particularly tolerant of drought during vegetative growth.
Pest &Disease Management	If a pre-emergence herbicide such as Pendimethalin
Weed Control	Weeding should be done by the second week after sowing , although this depends on the type of weeds present and how well the land was prepared
Cropping System	Sole cropping, In rotation with cereals or intercrop with cereals

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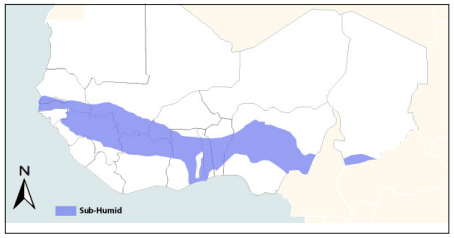
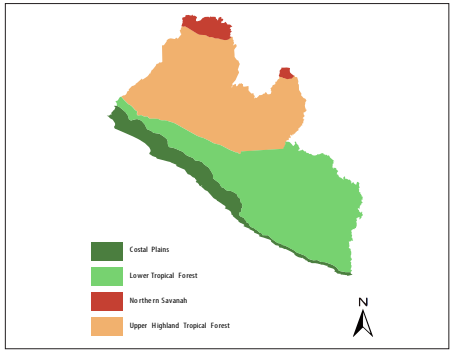
AGRO-INPUT PACKAGE

MAIZE/THE GAMBIA



WEST AFRICA AGRO-ECOLOGICAL ZONE
SUB-HUMID



COUNTRY-SPECIFIC AGRO-ECOLOGICAL ZONE
GUINEAN ZONE
Isohyet range (mm/per year) -

DESCRIPTION

Crop	Maize
Variety name	Jeka
Local name	Kurafet
Synonym	
Variety Type	Open Pollinated Variety (OPV)
Quantity of seed (kg/ hectare)	20
seed unit	kg/ha
Spacing	75cm x 45cm
Grain/Flesh Color	White
Planting / Sowing Time	July
Production System	Rainfed
Number of days from sowing / planting to maturity	105
Potential Yield	4.0 tonnes/ha
country average	4.0 tonnes/ha
Pest resistance	
Disease resistance	
Other stresses	Susceptible to water logging
Nutritional quality	
Other qualities	Resistant to drought. Resistance to striga

NUTRIENT RECOMMENDATION

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ORGANIC FERTILIZER RECOMMENDATION

Add manure

FERTILIZER SPECIFICATION

Application rate:	150 kg of NPK 6-20-10 (3 bags x 50 kg /ha)
Time of Application:	2 weeks after sowing
Application rate:	100 kg of Urea (2 bags x 50 kg /ha)
Time of Application:	4 weeks after sowing

GOOD AGRICULTURAL PRACTICES (GAP) & MANAGEMENT

Soil and Water Conservation Techniques	"Slash with cutlass to the ground level -Plough and harrow where tractor services are available and feasible -No tillage or minimum tillage could be adopted"
Method of fertilizer application	Side placement for NPK and burying for Urea fertilizers
Soil Amendments	Add organic manure when available and necessary
Water Management	Stone cords, Grass strip, Zaï, half moon
Pest &Disease Management	"Fungicides, Herbicides, insecticides Clear nearby host plants Practice crop rotation to avoid infestation"
Weed Control	Manual or chemical weed control is recommended
Cropping System	Mono cropping , rotation with legumes or intercropping with root crops or legumes

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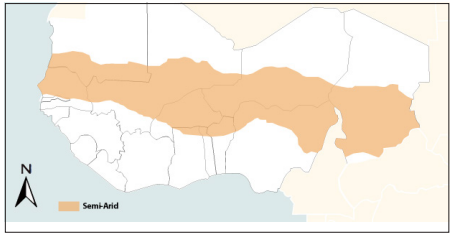
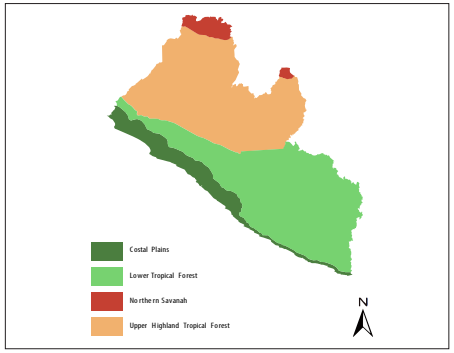
AGRO-INPUT PACKAGE

MILLET/THE GAMBIA



WEST AFRICA AGRO-ECOLOGICAL ZONE
SUB-ARIDE



COUNTRY-SPECIFIC AGRO-ECOLOGICAL ZONE
SAHELIAN ZONE
Isohyet range (mm/per year) -

DESCRIPTION

Crop	Millet
Variety name	Ex-Chalack
Local name	Chalack
Synonym	
Variety Type	
Quantity of seed (kg/ hectare)	
seed unit	kg/ha
Spacing	0.9m x 0.6m
Grain/Flesh Color	
Planting / Sowing Time	July
Production System	Rainfed
Number of days from sowing / planting to maturity	56
Potential Yield	4.0 tonnes/ha
country average	4.0 tonnes/ha
Pest resistance	
Disease resistance	
Other stresses	Susceptible to shattering and lodging
Nutritional quality	
Other qualities	Resistant to drought. Resistance to striga

NUTRIENT RECOMMENDATION

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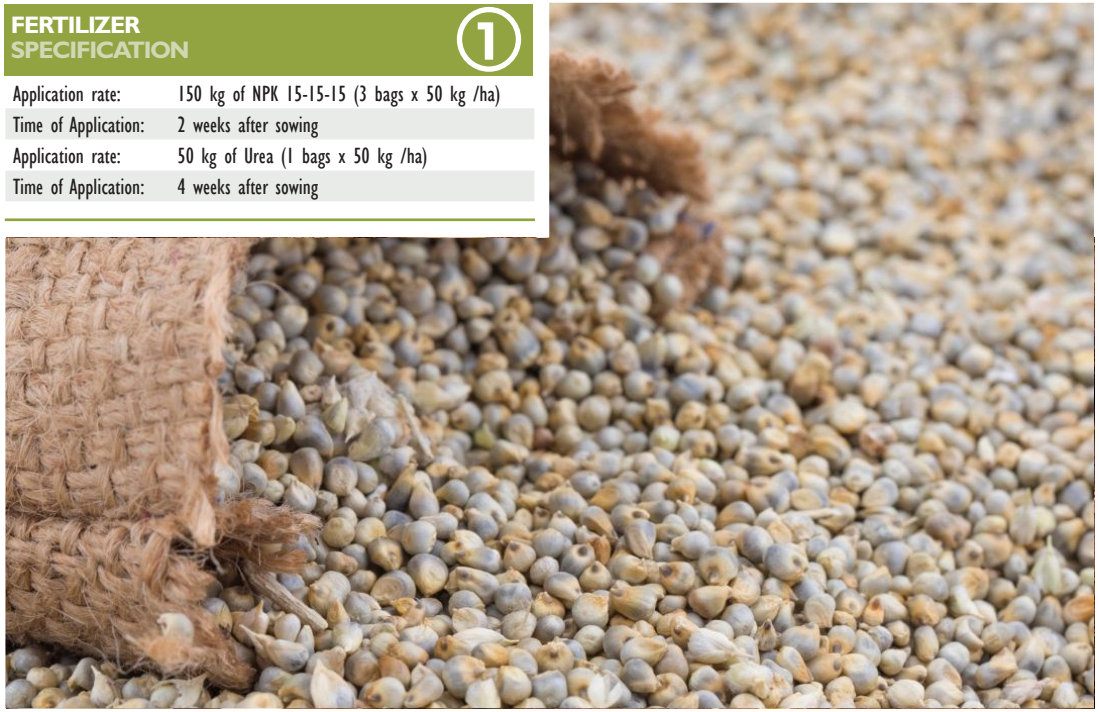
ORGANIC FERTILIZER RECOMMENDATION

Add manure

FERTILIZER SPECIFICATION

Application rate:	150 kg of NPK 15-15-15 (3 bags x 50 kg /ha)
Time of Application:	2 weeks after sowing
Application rate:	50 kg of Urea (1 bags x 50 kg /ha)
Time of Application:	4 weeks after sowing



GOOD AGRICULTURAL PRACTICES (GAP) & MANAGEMENT

Soil and Water Conservation Techniques	"Slash with cutlass to the ground level -Plough and harrow where tractor services are available and feasible -No tillage or minimum tillage could be adopted"
Method of fertilizer application	Side placement for NPK and burying for Urea fertilizers
Soil Amendments	Add organic manure when available and necessary
Water Management	Stone cords, Grass strip, Zaï, half moon
Pest &Disease Management	"Fungicides, Herbicides, insecticides Clear nearby host plants Practice crop rotation to avoid infestation"
Weed Control	Manual or chemical weed control is recommended
Cropping System	Mono cropping , rotation with legumes or intercropping with root crops or legumes

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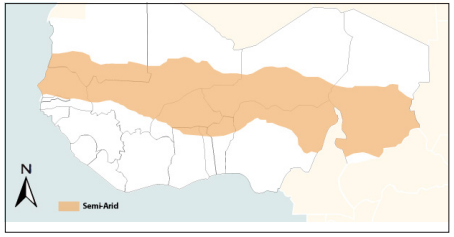
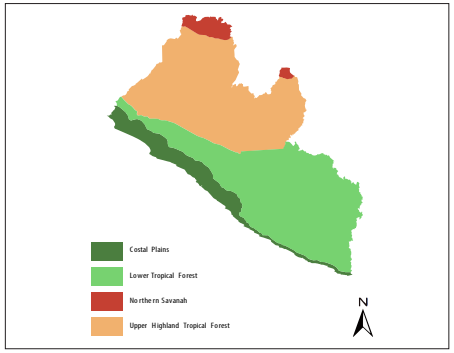
PEANUT/THE GAMBIA



WEST AFRICA AGRO-ECOLOGICAL ZONE
SUB-ARIDE



COUNTRY-SPECIFIC AGRO-ECOLOGICAL ZONE
SAHELIAN ZONE

Isohyet range (mm/per year) -

DESCRIPTION

Crop	Peanut (Groundnut)
Variety name	73-33
Local name	
Synonym	
Variety Type	Pure Line
Quantity of seed (kg/ hectare)	70
seed unit	kg/ha
Spacing	0.5m x 0.15m
Grain/Flesh Color	Brown
Planting / Sowing Time	July
Production System	Rainfed
Number of days from sowing / planting to maturity	110
Potential Yield	2.1 tonnes/ha
country average	2.1 tonnes/ha
Pest resistance	
Disease resistance	
Other stresses	Susceptible to shattering and lodging
Nutritional quality	
Other qualities	High dormancy, Rough testa. Resistant to drought

NUTRIENT RECOMMENDATION

-

ORGANIC FERTILIZER RECOMMENDATION

Add manure

FERTILIZER SPECIFICATION

Application rate:	150 kg of NPK 6-20-10 (3 bags x 50 kg /ha)
Time of Application:	2 weeks after sowing

GOOD AGRICULTURAL PRACTICES (GAP) & MANAGEMENT

Soil and Water Conservation Techniques	Seed bed should be free from compaction
Method of fertilizer application	Side placement, drilling
Soil Amendments	Add organic manure when available and necessary
Water Management	Rainfed
Pest &Disease Management	Integrated pest management (IPM)
Weed Control	Manual or chemical weed control is recommended
Cropping System	Sole cropping, In rotation with cereals or intercrop with cereals

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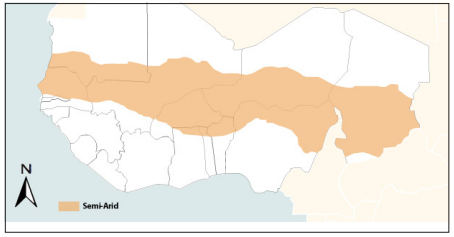
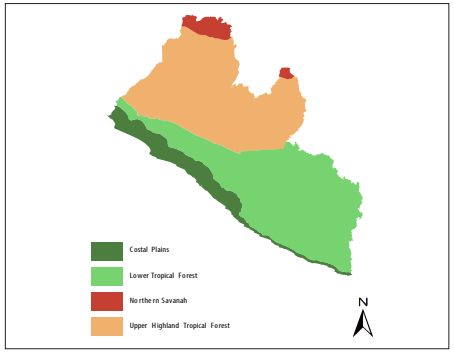
AGRO-INPUT PACKAGE

PEANUT/THE GAMBIA



WEST AFRICA AGRO-ECOLOGICAL ZONE
SUB-ARIDE



COUNTRY-SPECIFIC AGRO-ECOLOGICAL ZONE
SAHELIAN ZONE

Isohyet range (mm/per year) -

DESCRIPTION

Crop	Peanut (Groundnut)
Variety name	Fleur 11
Local name	
Synonym	
Variety Type	Pure Line
Quantity of seed (kg/ hectare)	75-80
seed unit	kg/ha
Spacing	0.5m x 0.15m
Grain/Flesh Color	Light Brown
Planting / Sowing Time	July
Production System	Rainfed
Number of days from sowing / planting to maturity	95
Potential Yield	2.1 tonnes/ha
country average	2.1 tonnes/ha
Pest resistance	
Disease resistance	
Other stresses	Susceptible to shattering and lodging
Nutritional quality	
Other qualities	Smooth testa, early maturing, low dormancy

NUTRIENT RECOMMENDATION

-

ORGANIC FERTILIZER RECOMMENDATION

Add manure

FERTILIZER SPECIFICATION

Application rate:	150 kg of NPK 6-20-10 (3 bags x 50 kg /ha)
Time of Application:	2 weeks after sowing

GOOD AGRICULTURAL PRACTICES (GAP) & MANAGEMENT

Soil and Water Conservation Techniques	Seed bed should be free from compaction
Method of fertilizer application	Side placement, drilling
Soil Amendments	Add organic manure when available and necessary
Water Management	Rainfed
Pest &Disease Management	Integrated pest management (IPM)
Weed Control	Manual or chemical weed control is recommended
Cropping System	Sole cropping, In rotation with cereals or intercrop with cereals

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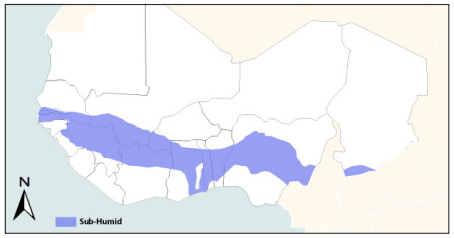
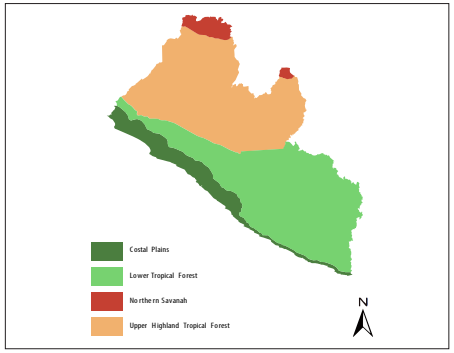
AGRO-INPUT PACKAGE

PEANUT/THE GAMBIA



WEST AFRICA AGRO-ECOLOGICAL ZONE
SUB-HUMIDE



COUNTRY-SPECIFIC AGRO-ECOLOGICAL ZONE
GUINEAN ZONE

Isohyet range (mm/per year) -

DESCRIPTION

Crop	Peanut (Groundnut)
Variety name	S 28/206
Local name	
Synonym	
Variety Type	Pure Line
Quantity of seed (kg/ hectare)	70
seed unit	kg/ha
Spacing	0.5m x 0.15m
Grain/Flesh Color	Brown
Planting / Sowing Time	July
Production System	Rainfed
Number of days from sowing / planting to maturity	120
Potential Yield	2.1 tonnes/ha
country average	2.1 tonnes/ha
Pest resistance	
Disease resistance	
Other stresses	Susceptible to shattering and lodging
Nutritional quality	
Other qualities	High dormancy, Rough testa. Resistant to drought

NUTRIENT RECOMMENDATION

-

ORGANIC FERTILIZER RECOMMENDATION

Add manure

FERTILIZER SPECIFICATION

Application rate:	150 kg of NPK 6-20-10 (3 bags x 50 kg /ha)
Time of Application:	2 weeks after sowing

GOOD AGRICULTURAL PRACTICES (GAP) & MANAGEMENT

Soil and Water Conservation Techniques	"Slash with cutlass to the ground level -Plough and harrow where tractor services are available and feasible -No tillage or minimum tillage could be adopted"
Method of fertilizer application	Side placement, drilling
Soil Amendments	Add organic manure when available and necessary
Water Management	Rainfed
Pest &Disease Management	Integrated pest management (IPM)
Weed Control	Manual or chemical weed control is recommended
Cropping System	Mono cropping , rotation with legumes or intercropping with root crops or legumes

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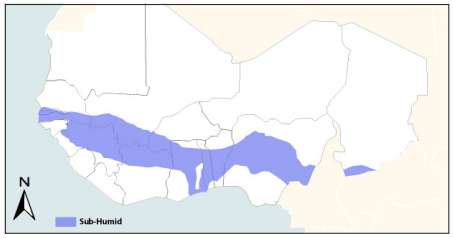
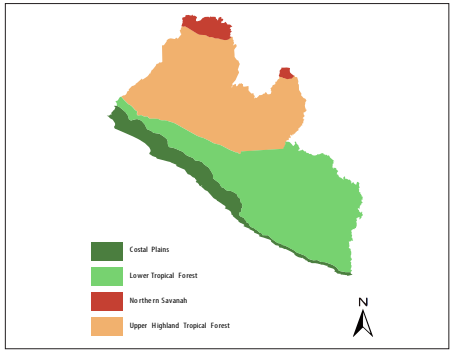
AGRO-INPUT PACKAGE

RICE/THE GAMBIA



WEST AFRICA AGRO-ECOLOGICAL ZONE
SUB-HUMIDE



COUNTRY-SPECIFIC AGRO-ECOLOGICAL ZONE
GUINEAN ZONE

Isohyet range (mm/per year) -

DESCRIPTION

Crop	Rice
Variety name	IR 64
Local name	
Synonym	
Variety Type	Pure Line
Quantity of seed (kg/ hectare)	15-30
seed unit	kg/ha
Spacing	20cm x 20cm
Grain/Flesh Color	White
Planting / Sowing Time	July
Production System	Lowland
Number of days from sowing / planting to maturity	110
Potential Yield	4.0 tonnes/ha
country average	4.0 tonnes/ha
Pest resistance	
Disease resistance	
Other stresses	Susceptible to water logging
Nutritional quality	
Other qualities	Day Neutral, Long grain

NUTRIENT RECOMMENDATION

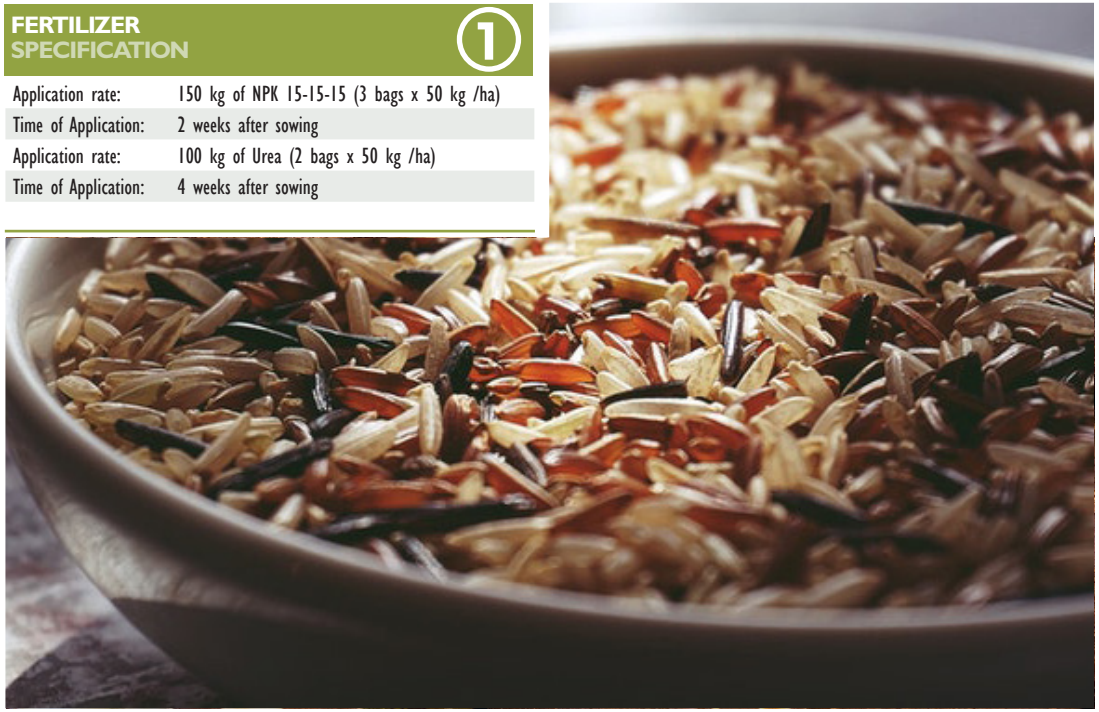
-

ORGANIC FERTILIZER RECOMMENDATION

Add manure

FERTILIZER SPECIFICATION

Application rate:	150 kg of NPK 15-15-15 (3 bags x 50 kg /ha)
Time of Application:	2 weeks after sowing
Application rate:	100 kg of Urea (2 bags x 50 kg /ha)
Time of Application:	4 weeks after sowing



GOOD AGRICULTURAL PRACTICES (GAP) & MANAGEMENT

Soil and Water Conservation Techniques	Plough, Harrow, Level and Maintain Water Using Bunding
Method of fertilizer application	Punch and side placement (direct seeding), Broadcasting, UDP
Soil Amendments	Add organic manure when available and necessary
Water Management	Basin, alternate wetting and drying, drainage
Pest &Disease Management	Early foliar damage is rarely a problem. However, cutting leaves just before transplanting can reduce yields. The plant can compensate, although very heavy leaf loss (>50%) may delay development and maturity
Weed Control	"Manage the fallow - stop weeds from setting seed during fallow periods. Clean irrigation systems - prevent weeds from growing along bunds and irrigation canals - weed seed can pass along the irrigation system to your field. "
Cropping System	Rice is mainly sole planted. It can be rotated with sweet potato, potato and vegetables

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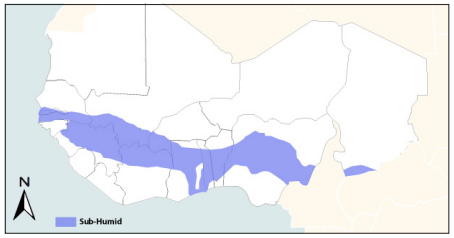
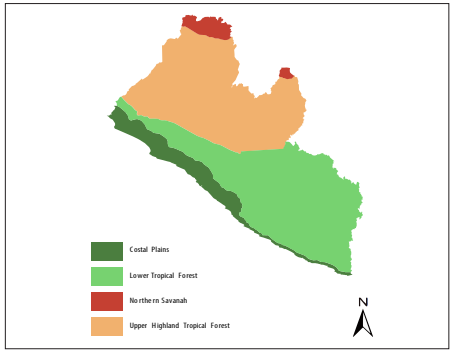
AGRO-INPUT PACKAGE

RICE/THE GAMBIA



WEST AFRICA AGRO-ECOLOGICAL ZONE
SUB-HUMIDE



COUNTRY-SPECIFIC AGRO-ECOLOGICAL ZONE
GUINEAN ZONE

Isohyet range (mm/per year) -

DESCRIPTION

Crop	Rice
Variety name	Sahel 134
Local name	
Synonym	
Variety Type	Pure Line
Quantity of seed (kg/ hectare)	15-30
seed unit	kg/ha
Spacing	20cm x 20cm
Grain/Flesh Color	White
Planting / Sowing Time	July
Production System	Upland
Number of days from sowing / planting to maturity	105-115
Potential Yield	4.0 tonnes/ha
country average	4.0 tonnes/ha
Pest resistance	
Disease resistance	
Other stresses	Susceptible to water logging
Nutritional quality	
Other qualities	Resistant to drought. Blast tolerant

NUTRIENT RECOMMENDATION

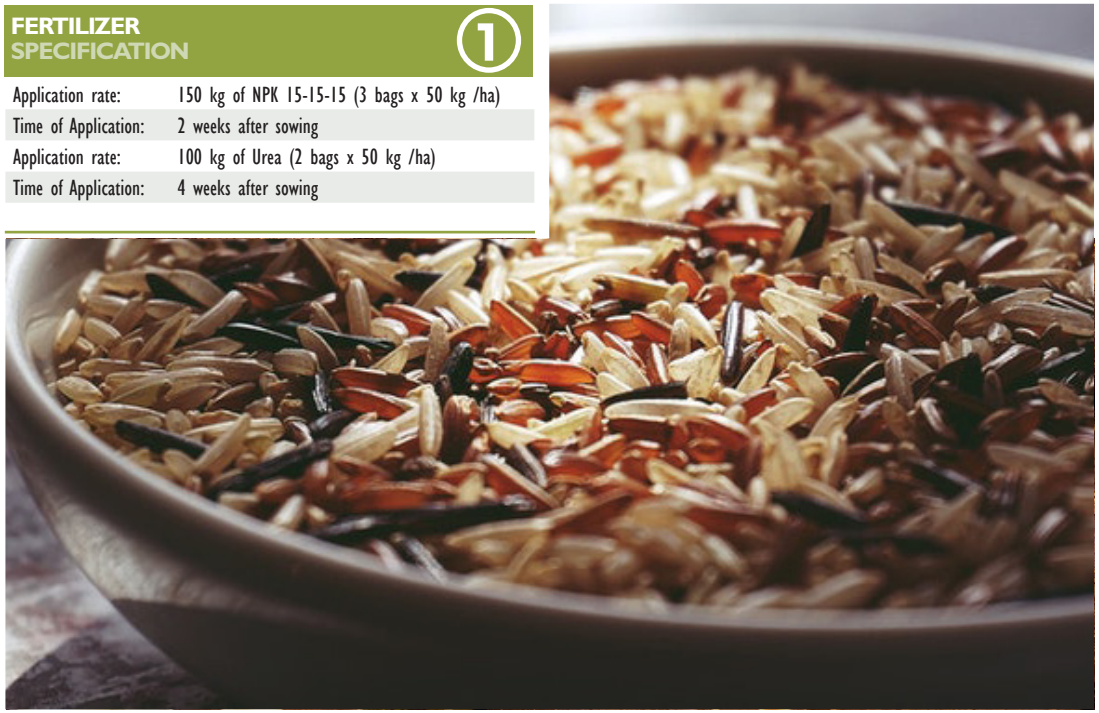
-

ORGANIC FERTILIZER RECOMMENDATION

Add manure

FERTILIZER SPECIFICATION

Application rate:	150 kg of NPK 15-15-15 (3 bags x 50 kg /ha)
Time of Application:	2 weeks after sowing
Application rate:	100 kg of Urea (2 bags x 50 kg /ha)
Time of Application:	4 weeks after sowing



GOOD AGRICULTURAL PRACTICES (GAP) & MANAGEMENT

Soil and Water Conservation Techniques	Plough, Harrow, Level and Maintain Water Using Bunding
Method of fertilizer application	Punch and side placement (direct seeding), Broadcasting, UDP
Soil Amendments	Add organic manure when available and necessary
Water Management	Basin, alternate wetting and drying, drainage
Pest &Disease Management	Early foliar damage is rarely a problem. However, cutting leaves just before transplanting can reduce yields. The plant can compensate, although very heavy leaf loss (>50%) may delay development and maturity
Weed Control	"Manage the fallow - stop weeds from setting seed during fallow periods. Clean irrigation systems - prevent weeds from growing along bunds and irrigation canals - weed seed can pass along the irrigation system to your field. "
Cropping System	Rice is mainly sole planted. It can be rotated with sweet potato, potato and vegetables

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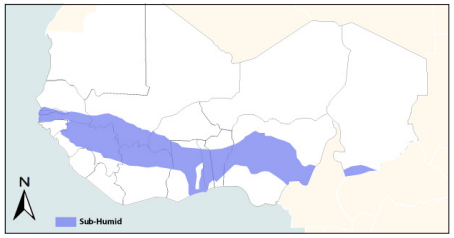
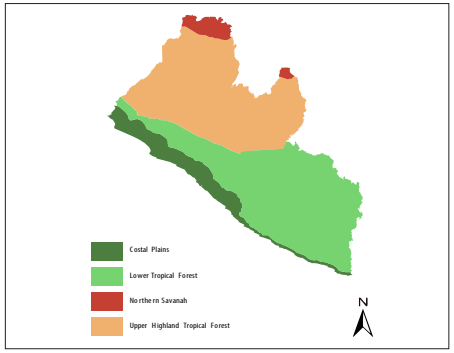
AGRO-INPUT PACKAGE

RICE/THE GAMBIA



WEST AFRICA AGRO-ECOLOGICAL ZONE
SUB-HUMIDE



COUNTRY-SPECIFIC AGRO-ECOLOGICAL ZONE
GUINEAN ZONE

Isohyet range (mm/per year) -

DESCRIPTION

Crop	Rice
Variety name	Sahel 134
Local name	
Synonym	
Variety Type	Pure Line
Quantity of seed (kg/ hectare)	15-30
seed unit	kg/ha
Spacing	20cm x 20cm
Grain/Flesh Color	White
Planting / Sowing Time	July
Production System	Lowland
Number of days from sowing / planting to maturity	110
Potential Yield	4.0 tonnes/ha
country average	4.0 tonne/ha
Pest resistance	
Disease resistance	
Other stresses	Susceptible to water logging
Nutritional quality	
Other qualities	Tolerant to cold

NUTRIENT RECOMMENDATION

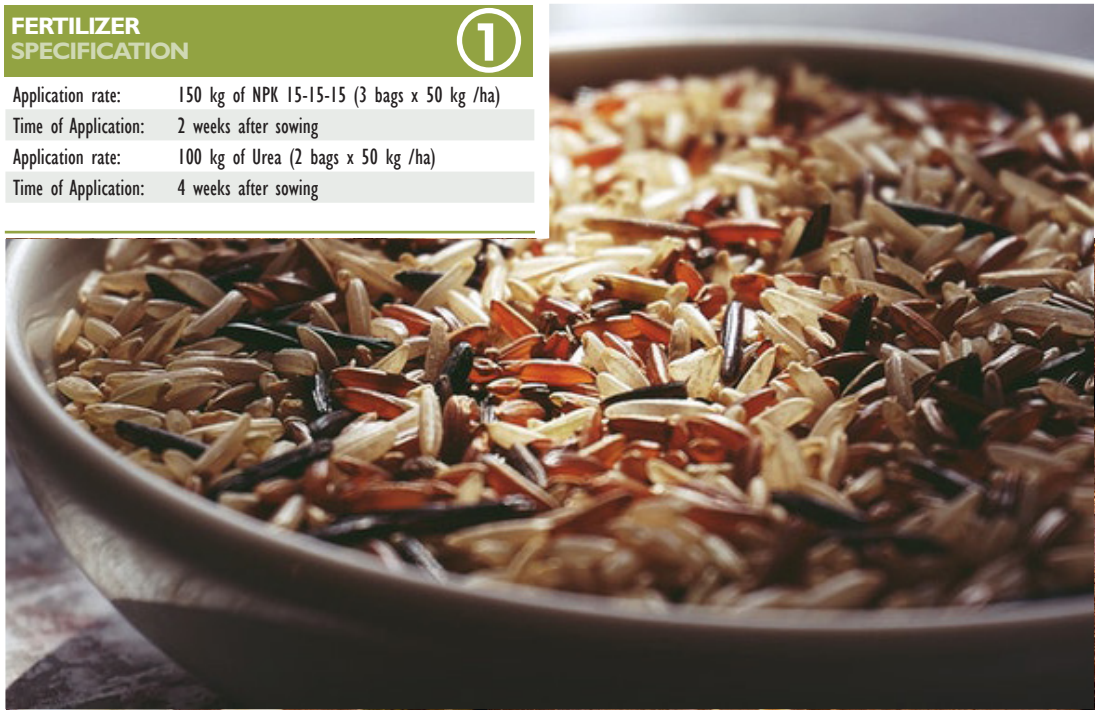
-

ORGANIC FERTILIZER RECOMMENDATION

Add manure

FERTILIZER SPECIFICATION

Application rate:	150 kg of NPK 15-15-15 (3 bags x 50 kg /ha)
Time of Application:	2 weeks after sowing
Application rate:	100 kg of Urea (2 bags x 50 kg /ha)
Time of Application:	4 weeks after sowing



GOOD AGRICULTURAL PRACTICES (GAP) & MANAGEMENT

Soil and Water Conservation Techniques	Plough, Harrow, Level and Maintain Water Using Bunding
Method of fertilizer application	Punch and side placement (direct seeding), Broadcasting, UDP
Soil Amendments	Add organic manure when available and necessary
Water Management	Basin, alternate wetting and drying, drainage
Pest &Disease Management	Early foliar damage is rarely a problem. However, cutting leaves just before transplanting can reduce yields. The plant can compensate, although very heavy leaf loss (>50%) may delay development and maturity
Weed Control	"Manage the fallow - stop weeds from setting seed during fallow periods. Clean irrigation systems - prevent weeds from growing along bunds and irrigation canals - weed seed can pass along the irrigation system to your field. "
Cropping System	Rice is mainly sole planted. It can be rotated with sweet potato, potato and vegetables

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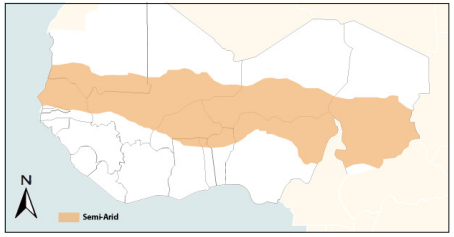
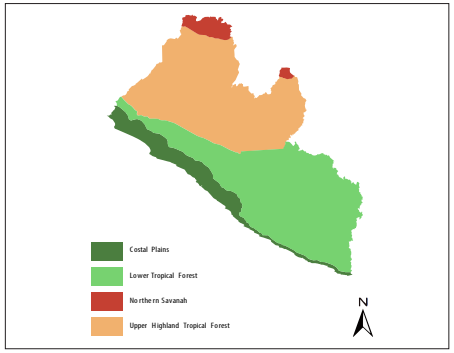
AGRO-INPUT PACKAGE

SORGHUM/THE GAMBIA



WEST AFRICA AGRO-ECOLOGICAL ZONE
SUB-ARIDE



COUNTRY-SPECIFIC AGRO-ECOLOGICAL ZONE
SUDANIAN ZONE

Isohyet range (mm/per year) -

DESCRIPTION

Crop	Sorghum
Variety name	Mobal
Local name	
Synonym	
Variety Type	Local
Quantity of seed (kg/ hectare)	
Spacing	75 cm x 30 cm
Grain/Flesh Color	White
Planting / Sowing Time	July
Production System	Rainfed
Number of days from sowing / planting to maturity	105
Potential Yield	4.0 tonnes/ha
country average	4.0 tonnes/ha
Pest resistance	
Disease resistance	
Other stresses	Susceptible to water logging
Nutritional quality	
Other qualities	Resistance to striga

NUTRIENT RECOMMENDATION

-

ORGANIC FERTILIZER RECOMMENDATION

Add manure

FERTILIZER SPECIFICATION

Application rate:	150 kg of NPK 15-15-15 (3 bags x 50 kg /ha)
Time of Application:	2 weeks after sowing
Application rate:	50 kg of Urea (1 bags x 50 kg /ha)
Time of Application:	4 weeks after sowing

GOOD AGRICULTURAL PRACTICES (GAP) & MANAGEMENT

Soil and Water Conservation Techniques	"Slash with cutlass to the ground level -Plough and harrow where tractor services are available and feasible -No tillage or minimum tillage could be adopted"
Method of fertilizer application	Side placement for NPK and burying for Urea fertilizers
Soil Amendments	Add organic manure when available and necessary
Water Management	Stone cords, Grass strip, Zaï, half moon
Pest & Disease Management	"Apply Integrated Pest Management (IPM) measures including chemical control, biological control, plant resistance and cultural control to remove insect population and limit damage - Rotation with cotton, groundnuts, cowpeas and pigeon peas will reduce the incidence of Striga"
Weed Control	"Weed control during the first 6 to 8 weeks after planting is crucial, as weeds compete aggressively with the crop for nutrients and water during this period -Weeds can be removed mechanically, using manual tools or ploughing. Hand pulling the weeds before flowering could be done -Proper ploughing is an effective method of weed control "
Cropping System	"Monocrop sorghum for higher yields rather than the traditional intercropping with pearl millet -In case of intercropping, alternate three rows of sorghum with three rows of legume (e.g., soybean) -Rotate sorghum with legumes (e.g. cowpea) in the dry season to enhance nitrogen fixation"

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Demba B. Jallow (Sirdems) (Ph.D)
National Agriculture Research Institute (NARI)
demsondoe@yahoo.co.uk

Demba NA Trawally
National Agriculture Research Institute (NARI)
dembatrawally@gmail.com, demba_trawally@yahoo.com

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