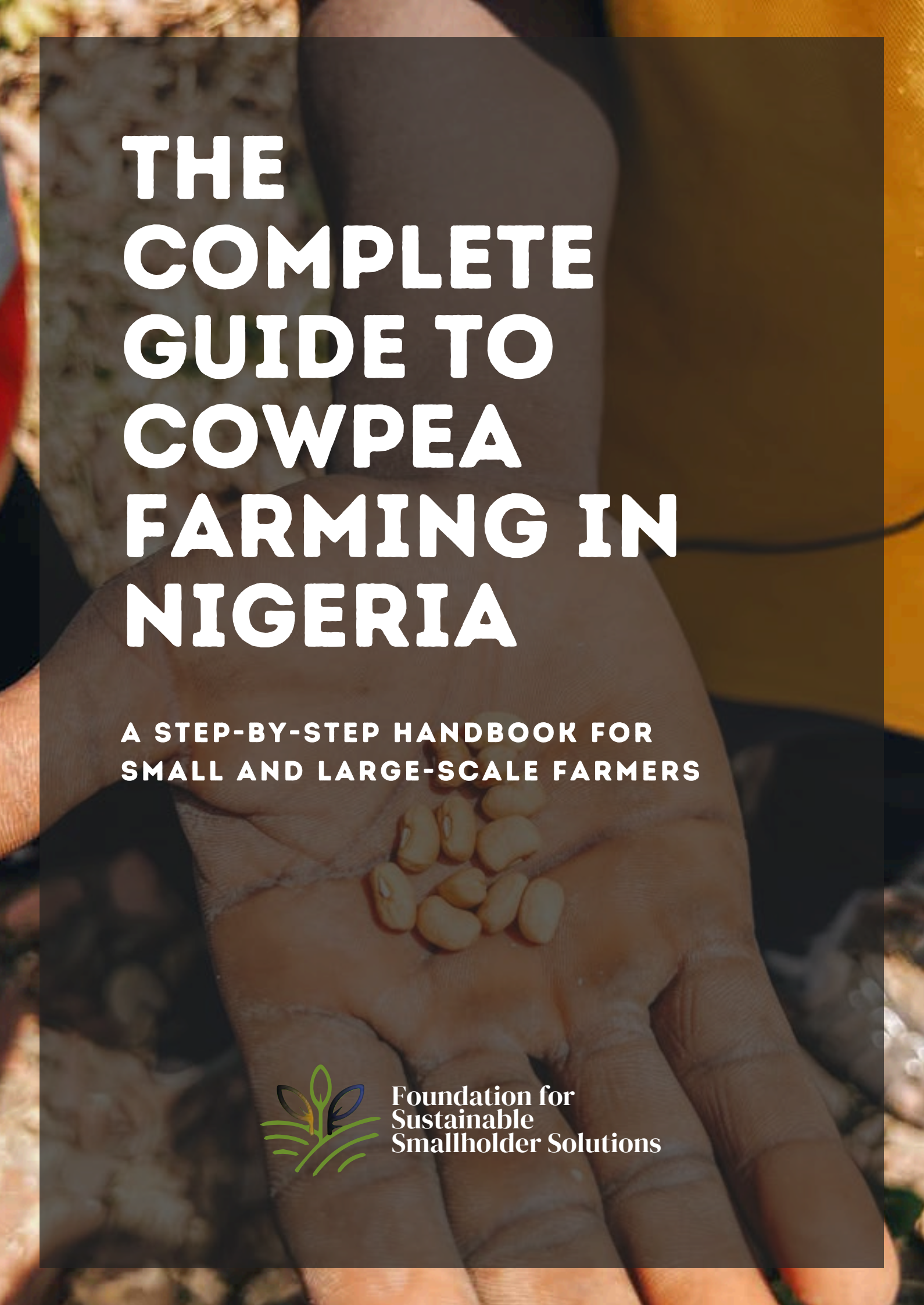

THE COMPLETE GUIDE TO COWPEA FARMING IN NIGERIA

A STEP-BY-STEP HANDBOOK FOR SMALL AND LARGE-SCALE FARMERS

Foundation for Sustainable Smallholder Solutions

THIS GUIDE HAS BEEN DEVELOPED AS PART OF THE FOUNDATION'S DRIVE TO ENCOURAGE FARMING AND EMPOWER SMALLHOLDERS WITH THE REQUISITE FARMING KNOWLEDGE. FOR MORE INFORMATION, VISIT WWW.FSSSOLUTIONS.ORG.

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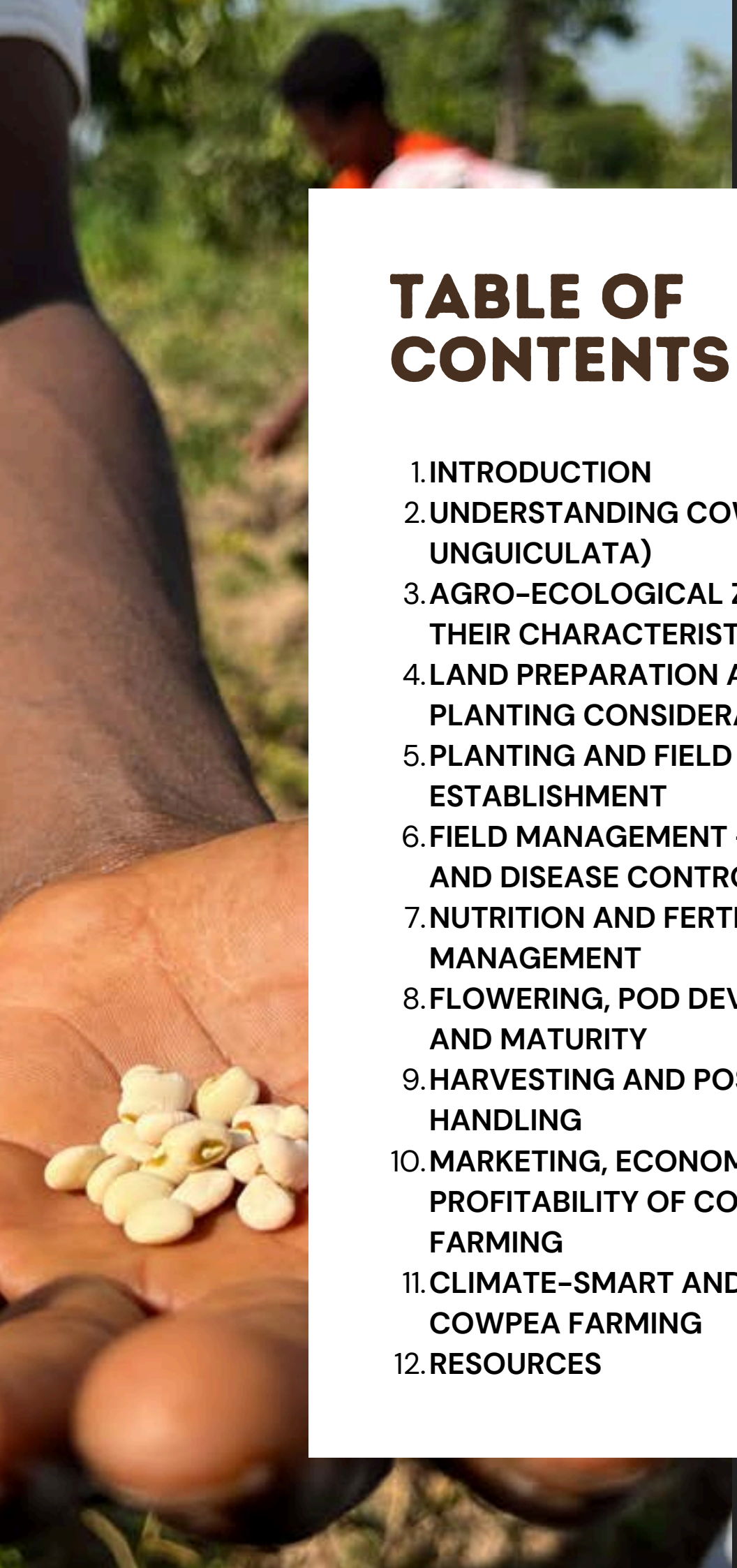

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1. INTRODUCTION

Cowpea (Vigna unguiculata), commonly referred to as "beans" in Nigeria, is one of the most important legume crops in the country. Nigeria is the world's largest producer and consumer of cowpea, and the crop plays a vital role in national food security, income generation, and soil fertility improvement through its nitrogen-fixing ability.

This handbook is designed to serve as a practical guide for Nigerian farmers, extension agents, agribusiness entrepreneurs, researchers, and policymakers who seek to improve cowpea production and harness its full economic potential.

OVERVIEW OF COWPEA PRODUCTION IN NIGERIA

Cowpea is a major staple and protein source for millions of Nigerians, especially in rural communities. Cultivation is most concentrated in the northern and middle-belt states, such as Kano, Kaduna, Borno, Zamfara, Niger, Benue, and Taraba, where the savannah ecology provides ideal growing conditions.

THIS HANDBOOK AIMS TO BRIDGE THESE KNOWLEDGE AND PRACTICE GAPS BY PROVIDING ACTIONABLE, FIELD-TESTED INFORMATION.

Demand for cowpea continues to rise due to:

- Population growth and urbanisation
- Expansion of cowpea-based food businesses
- Its nutritional value as a cheap protein source
- High export potential to neighbouring West African countries

However, average yields remain low (typically 300–700 kg/ha) compared to potential yields (>1,500 kg/ha), due to constraints such as:

- Use of unimproved varieties
- Inadequate pest and disease control
- Poor soil fertility
- Post-harvest losses
- Limited access to finance and markets

SOCIO-ECONOMIC IMPORTANCE

Cowpea farming is integral to the livelihoods of over 4 million households in Nigeria. It:

- Provides essential protein, especially where animal protein is scarce or costly
- Offers cash income for smallholders and traders, particularly women
- Enhances soil fertility through biological nitrogen fixation, reducing fertiliser costs for subsequent crops
- Serves as a key crop in mixed farming systems (with maize, millet, sorghum)
- Strengthens food and nutrition security in rural and peri-urban areas

Cowpea is also a driver of micro-enterprises — from threshing and milling to snack production (e.g., akara, moin-moin) — especially among youth and women.

OBJECTIVES OF THE HANDBOOK

This handbook is designed to:

- Serve as a step-by-step guide for profitable cowpea production
- Promote the adoption of improved and climate-resilient varieties
- Equip stakeholders with best practices across the value chain
- Promote sustainable, climate-smart agriculture techniques
- Offer templates, case studies, and practical tools for farm planning and decision-making
- Highlight market opportunities and business models for value addition

2. UNDERSTANDING COWPEA (VIGNA UNGUICULATA)

To successfully cultivate cowpea, it's essential to understand the plant's biological, ecological, and agronomic characteristics. This knowledge helps in choosing the right variety, adapting best practices, and managing risks throughout the production cycle.

TAXONOMY AND BOTANICAL DESCRIPTION

Cowpea is an annual legume known for its trifoliate leaves, creeping or erect growth habit, and relatively deep root system. It produces elongated pods containing oval to kidney-shaped seeds, which may be white, brown, black-eyed, or mottled, depending on the variety.

- **Kingdom:** *Plantae*
- **Family:** *Fabaceae* (*Leguminosae*)
- **Genus:** *Vigna*
- **Species:** *Vigna unguiculata*

MAJOR VARIETIES GROWN IN NIGERIA

Cowpea varieties are classified based on maturity period, resistance to pests/diseases, seed colour, and yield potential. Below are some common varieties:

Variety	Maturity (days)	Traits	Origin/Agency
IT89KD-391	60–70	Early maturing, Striga and drought tolerant	IITA
SAMPEA 11	70–75	High yield, aphid resistant, erect type	IAR Zaria
FUAMPEA 2	70–75	Short cooking time, Striga resistance, suited for intercropping	JOSTUN, Makurdi
FUAMPEA 4	80–90	Brown large seeds, high yield, ideal for intercropping	JOSTUN, Makurdi
IT97K-499-35	65–75	Pod borer and disease resistant	IITA

Tips for variety selection:

- For drought-prone areas, select early-maturing or drought-resistant types.
- Choose pest-resistant varieties for minimal pesticide use.
- For intercropping, erect varieties are often preferred.

GROWTH STAGES AND LIFE CYCLE

Cowpea has four key growth stages:

Germination and Emergence (0–10 days):

- Seeds sprout within 3–6 days after sowing.
- Vulnerable to pests like termites and ants.

Vegetative Stage (10–30 days):

- Leaf and stem development.
- Critical for root establishment and early canopy growth.

Flowering and Pod Formation (30–60 days):

- Flower buds form and open.
- Sensitive to moisture stress and nutrient deficiency.

Pod Maturation and Senescence (60–90+ days):

- Pods fill and mature.
- Leaf senescence begins, and nutrient translocation increases.

Component	Typical Value (per 100g dry weight)
Protein	23–25%
Carbohydrates	60–65%
Fat	1–2%
Fibre	5–6%
Iron	4–5 mg
Calcium	80–100 mg

NUTRITIONAL COMPOSITION

GROWTH STAGES AND LIFE CYCLE

Cowpea is often integrated into:

- Mixed cropping systems with cereals like maize, sorghum, millet
- Crop rotations to break disease cycles and enrich soil nitrogen
- Relay cropping for efficient land use

As a legume, cowpea forms symbiotic relationships with rhizobia bacteria, fixing atmospheric nitrogen into the soil, benefiting subsequent crops and reducing fertiliser costs.

GROWTH STAGES AND LIFE CYCLE

Factor	Requirement
Rainfall	400–1,200 mm/year; tolerates drought better than excess moisture
Temperature	Optimal: 27–35°C
Soil	Well-drained sandy loam or loamy soils with pH 5.5–7.0
Altitude	0–1,500m above sea level
Sunlight	Full sun exposure; shade reduces yield

Cowpea is well-suited to Nigeria's savannah regions but can also be grown in transitional zones with proper management.

PHOTOSYNTHETIC AND ROOT CHARACTERISTICS

- **Photosynthesis:** Cowpea uses the C3 pathway — efficient in cooler early mornings but less efficient in high temperatures compared to C4 crops like maize.
- **Root System:** Deep taproot system (up to 2m) with lateral roots enhances drought tolerance and nutrient uptake from deep soil layers.

BIOTIC AND ABIOTIC CONSTRAINTS

Constraint	Examples
Biotic	Aphids, Maruca pod borer, fungal diseases, nematodes
Abiotic	Drought, soil acidity, iron/zinc deficiency, high temperatures during flowering

Understanding these helps in selecting appropriate mitigation strategies covered in later chapters.

AGRO-ECOLOGICAL SUITABILITY MAP

Cowpea is primarily grown in:

- **Sudan Savannah**: Kano, Jigawa, Katsina
- **Northern Guinea Savannah:** Kaduna, Niger, Bauchi
- **Sahelian Zone:** Sokoto, Borno
- **Middle Belt Transition Zone:** Benue, Kogi, Taraba

3. AGRO-ECOLOGICAL ZONES AND THEIR CHARACTERISTICS

Nigeria is divided into several agro-ecological zones, each with distinct climate, soil, and topographic features. Understanding the suitability of each zone for cowpea production is critical to optimising yield, selecting appropriate varieties, and timing farm operations effectively.

MAJOR AGRO-ECOLOGICAL ZONES SUITABLE FOR COWPEA

Zone	Key States	Annual Rainfall	Temperature Range	Soil Type	Cowpea Suitability
Sahel	**Borno, Yobe, Sokoto**	**300–600 mm**	**28–40°C**	Sandy loam	Excellent (short-duration varieties)
Sudan Savannah	**Kano, Katsina, Jigawa**	**600–900 mm**	**26–38°C**	Sandy loam to clay loam	Excellent
Northern Guinea Savannah	**Kaduna, Niger, Bauchi**	**900–1,200 mm**	**24–35°C**	Loam and clay loam	Very Good
Southern Guinea Savannah	**Benue, Kogi, Kwara**	**1,200–1,500 mm**	**23–33°C**	Well-drained loam	Moderate to Good
Derived Savannah/ Forest Transition	**Ekiti, Ondo, Enugu**	**1,300–1,700 mm**	**22–32°C**	Loam with organic matter	Fair (requires good drainage)

RAINFALL PATTERNS AND IMPLICATIONS

Cowpea is highly drought-tolerant but sensitive to waterlogging. Understanding rainfall patterns is critical for:

- Choosing early-maturing varieties in low rainfall zones (e.g. Sahel)
- Avoiding flowering and pod-filling stages during heavy rains
- Staggering planting to reduce pest build-up

Practical Tip:
In areas with a short rainy season, plant within 2 weeks of the onset of rains. In areas with longer rainy seasons, consider double cropping or relay planting with maize or sorghum.

TEMPERATURE REQUIREMENTS

- Optimal growth: **27–35°C**
- Germination begins from **18°C**
- Temperatures >38°C during flowering can cause **flower drop and poor pod set**
- Night temperatures below 15°C can delay development

Cowpea performs well in the warm savannah zones of Nigeria. However, during the dry season (e.g., for irrigation farming), extreme heat may require shade nets or mulching.

SOIL CONDITIONS AND AMENDMENTS

Cowpea grows best in:

- **Well-drained sandy loam or loam soils**
- **Slightly acidic to neutral pH (5.5–7.0)**
- **Moderate organic matter content**

Avoid:

- Heavy clay soils (risk of waterlogging)
- Acidic soils (can limit nodulation)
- Saline or poorly drained soils

Soil Management Tips:

- Conduct a **soil test** every 2–3 years
- Apply **lime** to correct acidic soils (based on soil test)
- Add **compost or manure** to improve soil organic matter
- Use cover crops or mulch to retain moisture

PHOTOPERIOD SENSITIVITY AND DAY LENGTH

- Some traditional cowpea varieties are **photoperiod-sensitive** and will not flower until day length shortens.
- Improved varieties used in Nigeria today are mostly **photoperiod-insensitive**, allowing planting flexibility and multiple cropping cycles.

AGRO-ECOLOGICAL PLANTING CALENDAR OVERVIEW

Zone	Planting Window	Expected Harvest
Sahel	Mid-June – Early July	September
Sudan Savannah	Late June – Mid-July	October
Guinea Savannah	Early – Mid July	October – November
Derived Savannah	Mid July – Early August	November – December

Farmers should monitor **local rainfall onset**, **extension advice**, and **climatic forecasts** to optimise timing.

CLIMATE CHANGE IMPLICATIONS BY ZONE

Sahel/Sudan zones: Increasing frequency of dry spells and heat waves; need drought-tolerant varieties and soil moisture conservation.
Guinea/Derived zones: Unpredictable rainfall onset and cessation; risk of flooding in depressions.
Adaptation strategies:

- Early-maturing and climate-resilient varieties
- Intercropping with deep-rooted cereals
- Mulching and ridge planting
- Use of weather forecast apps and services

REGIONAL COWPEA SPECIALISATION

Some regions have developed niche strengths in cowpea production and processing:

Region	Strength
Kano	Large-scale production and market hubs
Borno	Dry season cowpea under irrigation
Benue	Intercropping with yam and maize
Kaduna	Seed production and distribution
Kwara	Women's cowpea processing clusters

ESTIMATED COST OF TOMATO FARMING PER HECTARE

Agro-Zone	Recommended Strategy
Sahel	Use early-maturing drought-tolerant varieties; conserve soil moisture
Sudan Savannah	Medium-duration, pest-resistant varieties; relay cropping possible
Guinea Savannah	Use improved varieties; manage soil fertility and pests intensively
Derived Savannah	Intercrop with maize or cassava; ensure good drainage

4. LAND PREPARATION AND PRE-PLANTING CONSIDERATIONS

Successful cowpea cultivation starts with proper land preparation and pre-planting practices. This phase influences soil fertility, moisture conservation, pest and weed control, and ultimately crop yield.

SITE SELECTION

Ideal field characteristics:

- Flat or gently sloping land with good drainage
- Light to medium-textured soils (sandy loam preferred)
- No history of waterlogging
- Free from shade or competition with large trees

Avoid:

- Low-lying or swampy areas
- Fields with high weed pressure or persistent pests

Tip: Rotate cowpea with cereals or root crops to reduce pest build-up and replenish soil fertility.

LAND CLEARING

- Use manual labour (cutlass, hoes), mechanised tools, or herbicides
- Clear stumps, shrubs, and crop residues
- Retain beneficial organic matter if possible (e.g., mulched weeds)

Best practice: Clear land early before rain begins to allow time for seedbed preparation.

TILLAGE OPERATIONS

Tillage improves soil aeration, seed-soil contact, and water infiltration.

Method	Tools Used	When Used	Notes
Manual	Hoe, cutlass	Small plots	Labour-intensive
Animal-drawn	Ox-plough	Medium plots	Faster than manual
Mechanised	Tractor-mounted plough or harrow	Large fields	Best for commercial farmers

- **Harrowing** (2–3 passes) helps to break up clods and level the soil
- **Ridging** may be necessary in poorly drained soils
- **Flat beds** are suitable for most savannah areas

SOIL TESTING AND FERTILITY ASSESSMENT

Conduct a **soil test** before planting to determine:

- pH levels
- Nutrient levels (N, P, K)
- Organic matter content

Recommended actions based on soil test:

- pH < 5.5: Apply **lime** at 2–4 tonnes/ha
- Low phosphorus: Apply **Single Super Phosphate (SSP)** or **Triple Super Phosphate (TSP)**
- Organic matter < 2%: Apply **well-rotted manure or compost**

Soil test frequency: Every 2–3 seasons

FERTILITY IMPROVEMENT AND SOIL AMENDMENTS

Though cowpea can fix nitrogen, phosphorus and potassium are often limiting.

Input	Rate (per hectare)	Application Method
SSP or TSP	20–30 kg P_2O_5	Banding during planting
NPK 15-15-15	100–150 kg	Broadcast at planting or side dress
Farmyard manure	5–10 tonnes	Apply and incorporate during land prep
Biofertiliser (e.g. rhizobia inoculants)	5–10 g/kg seed	Coat seeds before planting

WEED MANAGEMENT (PRE-PLANTING)

- **Land preparation** helps bury weed seeds and destroy early flushes
- Apply **pre-emergence herbicides** (e.g., Pendimethalin at 1.0–1.5 L/ha) if appropriate
- Use **manual weeding** or **mulching** where herbicides are not feasible

MOISTURE CONSERVATION TECHNIQUES

Especially important in semi-arid zones:

- **Tied ridges** or **contour bunds** slow down water runoff
- **Mulching** reduces evaporation and suppresses weeds
- **Cover cropping** during off-season builds organic matter

SEED SELECTION AND TREATMENT

Use certified seeds from reputable agro-dealers or farmer associations. Look for:

- High germination rates (>85%)
- Pest/disease resistance
- Appropriate maturity length for your zone

Seed Treatment Options:

- **Rhizobial inoculants:** Enhance nitrogen fixation
- **Fungicide + insecticide dust (e.g., Apron Star):** Protect seedlings from soil-borne pathogens and early insect attack

Dressing rate: Follow label instructions (typically 10 g per kg of seed)

PLANNING PLANTING LAYOUT AND SPACING

Spacing affects canopy development, pest exposure, and yield.

Type	Spacing	Plant Population/ha
Sole crop	75 cm x 20 cm	~66,000 plants
Intercrop (with maize)	100 cm x 30 cm (within row)	~44,000 plants
Broadcast (not recommended)	-	Inconsistent spacing

Tip: Mark planting rows ahead of time using ropes or planters.

RISK ASSESSMENT AND PRE-SEASON PLANNING

Before planting, assess:

- **Market availability** and price trends
- **Input costs** (seed, fertiliser, labour)
- **Weather forecasts**
- **Labour availability**

5. PLANTING AND FIELD ESTABLISHMENT

Planting is a critical stage in cowpea production. Proper timing, spacing, and planting techniques ensure good germination, strong root establishment, and uniform crop growth, all of which contribute to higher yields and better resistance to pests and diseases.

OPTIMUM PLANTING TIME

Plant cowpea at the **beginning of the rainy season**, once the soil has enough moisture to support germination. This ensures early establishment before major pest infestations and aligns flowering with optimal weather.

Agro-Ecological Zone	Recommended Planting Window
Sahel	Mid-June to early July
Sudan Savannah	Late June to mid-July
Guinea Savannah	Early to mid-July
Derived Savannah	Mid to late July

For **dry-season irrigation farming**, planting may occur from **November to January**, depending on water availability and pest pressure.

SEED RATE AND PLANT POPULATION

Correct seed rate ensures optimal plant population per hectare and canopy coverage.

Cropping System	Spacing	Seed Rate (kg/ha)	Target Plant Population
Sole cropping	75 cm x 20 cm	20–25 kg	~66,000 plants
Intercropping (with maize)	100 cm x 30 cm	15–18 kg	~44,000 plants

Tip: Adjust seed rate based on seed size and germination percentage.

SEED TREATMENT BEFORE PLANTING

Treating cowpea seeds protects them from soil-borne pathogens and pests during the vulnerable germination phase.

Recommended treatments:

- **Fungicide + insecticide coating** (e.g., Apron Star, Dressforce): Prevents damping-off, early aphid attack
- **Rhizobia inoculants** (e.g., Bradyrhizobium spp.): Boosts nitrogen fixation, particularly in soils with no prior legume history

Method:

- Mix fungicide/insecticide powder with a little water in a bowl
- Add seed and stir until coated evenly
- Dry under shade for 30 minutes before planting

PLANTING TECHNIQUES

You can plant cowpea using:

- **Manual planting** (hoe or stick method)
- **Animal-drawn planter**
- **Mechanised seed drill**

Planting depth: 2.5 – 5 cm
Seeds per hole: 2 seeds (thin to 1 later if needed)
Ensure firm soil-to-seed contact to improve germination. Avoid very deep planting, especially in sandy soils, as it can hinder emergence.

IRRIGATION (WHERE APPLICABLE)

Cowpea is typically rainfed, but in **dry-season production** or **drought-prone areas**, irrigation is vital.

Irrigation Type	Suitability	Comments
Furrow irrigation	Flat lands	Labour-intensive
Drip irrigation	Small-scale, high-value farming	Water-efficient, costly setup
Overhead sprinkler	Commercial farms	Ensure leaves dry after watering to reduce disease risk

Irrigation schedule:

- During dry season: Water every 5–7 days
- Reduce watering at pod maturity to avoid rot

GERMINATION AND CROP STAND EVALUATION

Germination check (5–7 days after planting):

- Count the number of emerged seedlings in several 1-metre row segments
- Calculate average emergence rate
- If emergence is <70%, consider **gap filling** with fresh seed immediately

THINNING AND GAP FILLING

- **Thinning:** Done 10–14 days after emergence, leaving 1 healthy seedling per stand
- **Gap filling:** Replant missing spots to maintain plant population. Use pre-treated seed.

EARLY FIELD MANAGEMENT (FIRST 2-3 WEEKS)

- **Weed control:** Hand hoeing or herbicide application as needed
- **Pest scouting:** Monitor for aphids, thrips, and cutworms
- **Soil crusting:** Break crusts manually after heavy rain to help seedlings emerge

MULCHING AND SOIL MOISTURE MANAGEMENT

- Mulch between rows with dry grass, straw, or crop residues
- Helps retain soil moisture, reduce weed emergence, and regulate temperature

EMERGENCY MEASURES

In case of poor emergence due to:

- **Drought or heavy rainfall:** Consider replanting or adjusting future planting schedule
- **Pest/disease attack:** Apply rescue treatments promptly (see pest management chapter)
- **Low germination seed:** Avoid reuse for next planting; procure certified seed

6. FIELD MANAGEMENT - WEED, PEST, AND DISEASE CONTROL

Effective field management ensures healthy crop development and protects yields from major biotic threats. This chapter covers weed control, pest management, and disease prevention strategies tailored to Nigerian farming contexts.

WEED MANAGEMENT

Weeds compete with cowpea for nutrients, light, and water, especially during the first 4–6 weeks after planting.

Common Weeds in Cowpea Fields

- *Striga gesnerioides* (witchweed)
- *Imperata cylindrica* (spear grass)
- *Commelina spp.* (dayflower)
- *Digitaria spp.* (crabgrass)
- *Ageratum conyzoides* (goat weed)

WEED CONTROL METHODS

Method	Timing	Tools/Products	Remarks
Manual weeding	2–3 weeks after planting and before flowering	Hoe, cutlass	Cost-effective for small farms
Pre-emergence herbicide	0–3 days after planting	Pendimethalin (1.0–1.5 L/ha)	Controls germinating weeds
Post-emergence herbicide	3–5 weeks after planting	Fluazifop-P-butyl (for grasses)	Use with care to avoid crop damage
Mulching	Immediately after planting	Dry grass, straw	Suppresses weed growth
Intercropping	Throughout season	Cowpea + maize/sorghum	Reduces weed pressure via canopy shading

PEST MANAGEMENT

Cowpea is vulnerable to numerous insect pests at all stages. Early detection and integrated control are key to minimising damage.

MAJOR PESTS AND THEIR CONTROL

Pest	Stage Attacked	Symptoms	Control Measures
Aphids (*Aphis craccivora*)	Seedling–vegetative	Leaf curling, honeydew	Use neem extract or systemic insecticides (e.g., Confidor)
Thrips	Vegetative–flowering	Silvery leaves, stunted buds	Spray Cypermethrin or Dimethoate
Maruca pod borer (*Maruca vitrata*)	Flower–pod	Webbing, holes in pods	Apply insecticides at flowering (e.g., Karate, Lambda-cyhalothrin)
Legume pod borer (*Helicoverpa armigera*)	Pod	Boreholes in pods, seed damage	Spray during pod initiation
Leaf beetles	Vegetative	Irregular holes on leaves	Manual picking or early sprays
Cowpea bruchid (*Callosobruchus maculatus*)	Storage	Holes in stored seeds	Use airtight storage and fumigate as needed

INTEGRATED PEST MANAGEMENT (IPM)

IPM combines cultural, mechanical, biological, and chemical methods to manage pests sustainably.

IPM Strategies for Cowpea

- **Cultural:** Early planting, crop rotation, resistant varieties
- **Mechanical:** Hand-picking pests, destroying infested pods
- **Biological:** Encourage beneficial insects (ladybirds, parasitic wasps)
- **Botanical:** Use neem seed extract (50 ml/litre of water)
- **Chemical:** Use targeted insecticides only when pest thresholds are reached (avoid routine spraying)

Pest Monitoring Tip: Inspect 10–15 randomly selected plants per field twice a week. Take action when pest population exceeds economic thresholds.

DISEASE MANAGEMENT

Cowpea is susceptible to several fungal, viral, and bacterial diseases. Many of these are spread by insect vectors or poor field hygiene.

COMMON DISEASES

Disease	Causal Agent	Symptoms	Control
Cowpea Mosaic Virus (CPMV)	Virus	Mottling, leaf distortion	Use virus-free seed, control aphids
Bacterial Blight	*Xanthomonas spp.*	Leaf scorch, stem lesions	Crop rotation, resistant varieties
Fusarium Wilt	*Fusarium oxysporum*	Wilting, yellowing	Use resistant varieties, clean seed
Anthracnose	*Colletotrichum spp.*	Brown sunken spots on pods	Seed treatment, fungicide spray
Root rot	Soil-borne fungi	Seedling death, poor vigour	Avoid poorly drained soils, apply Trichoderma (biological control)

SAFE AND RESPONSIBLE USE OF PESTICIDES

When using chemical controls:

- **Read and follow label instructions**
- **Use personal protective equipment (PPE)** – gloves, goggles, mask
- **Avoid spraying during peak heat or wind**
- **Observe pre-harvest intervals** to avoid residues
- **Alternate insecticides** to prevent resistance build-up

Pesticide disposal: Bury empty containers away from water sources. Never reuse pesticide bottles.

ORGANIC AND LOW-INPUT OPTIONS

Farmers with limited access to chemicals can use:

- **Neem leaf extract:** Effective against aphids and thrips
- **Wood ash:** Sprinkled on young plants for protection
- **Intercropping:** Maize, sorghum or millet with cowpea to disrupt pest habitat
- **Crop rotation:** Avoid planting cowpea on the same land for 2 consecutive seasons

ROLE OF EXTENSION SERVICES AND FARMER GROUPS

- Join farmer cooperatives or agro-networks to access real-time pest alerts and control methods.
- Contact **state ADPs (Agricultural Development Programmes)** or **IITA outreach** for updated pest and disease control protocols.

Cowpea Mosaic Virus (CPMV) disease

Anthracnose disease

Bacterial Blight disease

Root rot disease

Fusarium Wilt disease

7. NUTRITION AND FERTILISER MANAGEMENT

Cowpea requires a balanced supply of nutrients for optimal growth and productivity. While it fixes its own nitrogen through symbiosis with soil bacteria, other nutrients must be provided through fertilisation or organic amendments, especially in poor soils. Proper nutrition enhances root development, flowering, pod filling, and disease resistance.

ESSENTIAL NUTRIENTS FOR COWPEA GROWTH

Nutrient	Function	Deficiency Symptoms
Nitrogen (N)	Promotes vegetative growth, leaf development	Pale green or yellowing leaves, stunted growth
Phosphorus (P)	Root formation, flowering, seed development	Purplish leaves, poor pod formation
Potassium (K)	Enhances water regulation, disease resistance	Scorched leaf edges, weak stems
Calcium (Ca)	Strengthens cell walls	Leaf tip burn, flower drop
Magnesium (Mg)	Central component of chlorophyll	Yellowing between leaf veins
Micronutrients (Zn, B, Mo)	Support various plant functions	Poor nodulation, reduced yields

SOIL TESTING AND NUTRIENT ASSESSMENT

Soil test is essential before fertilisation to determine:

- Nutrient deficiencies
- pH level
- Organic matter content

Recommended frequency: Once every 2–3 seasons.
Ideal soil pH for cowpea: 5.5–7.0
If soil is too acidic (pH < 5.5), apply **agricultural lime** at 2–4 tonnes/ha.

BASAL FERTILISER APPLICATION (AT PLANTING)

Though cowpea fixes nitrogen, it benefits from starter fertiliser, especially phosphorus and potassium.

Fertiliser Type	Rate (per hectare)	Application Method
Single Super Phosphate (SSP)	20–30 kg P_2O_5	Band or spot application
NPK 15-15-15	100–150 kg	Broadcast or spot application
Organic manure	5–10 tonnes	Mixed into soil 2–3 weeks before planting

Tip: Avoid applying too much nitrogen – it promotes excessive vegetative growth and delays flowering.

TOP DRESSING AND MID-SEASON FERTILISER USE

Top dressing is typically **not required** for cowpea under normal rainfed conditions. However, in nutrient-poor soils or continuous cropping systems, additional fertiliser may be beneficial:

- Apply **Urea (46% N)** at **25–40 kg/ha** 3–4 weeks after planting if plants appear pale or stunted.
- Supplement with **KCl (Potash)** at **30–50 kg/ha** in potassium-deficient soils.

Apply during weeding or light rainfall to ensure absorption.

BIOFERTILISERS AND INOCULANTS

Cowpea forms a symbiotic relationship with *Rhizobium* bacteria to fix nitrogen. Using biofertiliser inoculants boosts nitrogen fixation and overall plant health.

Product	Rate	Application
Rhizobium inoculant (e.g., NoduMax)	5–10 g/kg of seed	Mix with moist seed before planting

Inoculation is especially helpful on soils with no history of legumes.

ORGANIC FERTILISER SOURCES

- **Farmyard manure:** 5–10 tonnes/ha incorporated during land preparation
- **Compost:** 2–5 tonnes/ha, especially for small-scale farms
- **Green manure (e.g., Mucuna, Sesbania):** Grown in off-season and ploughed under
- **Wood ash:** Rich in potassium and micronutrients; can be applied lightly at base of plants

FOLIAR FERTILISERS AND MICRONUTRIENT SPRAYS

Apply during flowering or pod filling to boost yields and reduce flower drop.

Product	Timing	Rate
Foliar NPK (e.g., Multi-K, Crop Booster)	Flowering stage	5–10 ml/litre
Micronutrient mix (Zn, B, Mo)	Mid-growth	As per label

Spray in early morning or late evening to avoid evaporation and leaf burn.

8. FLOWERING, POD DEVELOPMENT, AND MATURITY

The reproductive phase of cowpea—flowering through to pod maturity—is a critical stage that directly determines yield. Proper management at this stage ensures optimal pod set, seed development, and reduces losses from flower abortion, pest attack, or premature drying.

FLOWERING STAGE

Cowpea generally starts flowering **35–45 days after planting**, depending on the variety and environmental conditions.

Characteristics:

- Flowers are usually purple, white, or pale yellow.
- Flowering continues for 2–3 weeks.
- Self-pollinated, but some cross-pollination can occur.

Key Needs During Flowering:

- **Adequate soil moisture** – drought stress can cause flower drop.
- **Pest control** – protect against thrips and *Maruca vitrata* (pod borer).
- **Nutrient availability** – apply foliar boosters if necessary.

POD FORMATION AND DEVELOPMENT

Pods develop rapidly after flowering, typically within **7–10 days.**

Observations:

- A healthy plant forms **10–25 pods,** each 10–25 cm long.
- Most varieties produce **7–15 seeds per pod,** depending on genetics and environmental factors.

Management Practices:

- **Continue pest surveillance** – protect from *Maruca vitrata*, *Helicoverpa* (pod borers), and beetles.
- **Avoid moisture stress** – irrigate during dry spells, particularly for dry-season farming.
- **Minimise handling** – cowpea flowers and pods are sensitive to physical disturbance.

COMMON ISSUES DURING REPRODUCTIVE PHASE

Problem	Cause	Solution
Flower abortion	Moisture stress, heat, nutrient deficiency	Irrigate, apply foliar fertilisers (NPK + Boron)
Pod borers	Maruca vitrata, Helicoverpa armigera	Spray insecticides at early pod stage
Poor pod fill	Nutrient stress (P, K), pest damage	Apply K-rich foliar fertilisers; ensure healthy canopy

PHYSIOLOGICAL MATURITY

Maturity occurs **65–90 days after planting**, depending on variety and agro-ecological zone.

Indicators of Maturity:

- Pods turn **brown or straw-coloured**
- Seeds rattle inside the pod
- Leaves yellow and fall off naturally
- No new flowers or pods are produced

Note: Do not delay harvest beyond this stage, especially during the rainy season, to avoid seed shattering or fungal infection.

FINAL PEST AND DISEASE WATCH

At this stage, be vigilant about:

- **Pod borers** (especially *Maruca vitrata*)
- **Storage pests** (*bruchids* may start infestation in field)
- **Fungal infections** if harvest is delayed during rainy periods

Apply **last protective sprays** no less than 10–14 days before expected harvest.

SEED MATURITY VS MARKET MATURITY

- **For grain:** Wait until full seed development and pod dryness
- **For vegetable/fresh market:** Harvest immature green pods 50–60 days after planting

Timing is important to maximise price and maintain quality.

SUMMARY OF BEST PRACTICES DURING FLOWERING AND MATURITY

- Maintain **moisture and nutrient balance** to prevent flower drop
- **Scout regularly** and apply targeted pest control
- **Harvest promptly** once pods are dry to avoid shattering
- **Record dates** of flowering and maturity for future planning

9. HARVESTING AND POST-HARVEST HANDLING

Harvesting at the right time and using proper techniques is crucial to preserve seed quality, minimise losses, and maximise market value. Post-harvest handling—especially drying, threshing, storage, and pest management—greatly influences profitability.

WHEN TO HARVEST COWPEA

The right time to harvest depends on the intended use:

Purpose	Harvest Time	Indicators
Grain (dry seed)	70–90 days after planting (variety dependent)	Pods turn straw-brown, seeds hard and rattle
Fresh pods (vegetable use)	50–60 days after planting	Pods green, firm, immature seeds
For seed production	Same as grain, but handle more carefully	Mature, disease-free pods only

Avoid over-maturity to reduce losses from:

- Pod shattering
- Fungal infection (if weather is humid)
- Seed discoloration

HARVESTING TECHNIQUES

Manual Harvesting (most common)

- Use hand-picking or cutlass to pluck or cut mature pods.
- Perform 2–3 harvests at 3–5 day intervals, especially with indeterminate or dual-purpose varieties.
- Avoid damaging pods or plants unnecessarily to prevent seed loss.

Mechanical Harvesting

- Applicable in large-scale farms using combine harvesters.
- Requires well-dried crops and uniform maturity.

Tip: Harvest early in the day or late afternoon when pods are less brittle to minimise shattering.

FIELD DRYING OF PODS

After harvest:

- Spread pods on clean tarpaulin or mats in full sun.
- Dry for 3–5 days until pods are brittle and seeds rattle freely.
- Turn frequently to prevent mould and ensure even drying.

Moisture content for threshing: ~13%
Moisture content for storage: ~10% or lower

THRESHING AND WINNOWING

Threshing Methods

- **Manual:** Beating pods with sticks or treading by foot.
- **Mechanical:** Use cowpea threshers to reduce time and labour.

Winnowing

- Remove chaff and broken pod materials using wind or mechanical blowers.
- Perform on clean surface to maintain grain hygiene.

Note: Avoid over-threshing to prevent cracking or splitting of seeds.

CLEANING AND GRADING

- Clean seeds by hand or using sieves to remove stones, broken seeds, and debris.
- Grade into sizes or quality classes depending on market standards.
- For seed production, separate cracked, discoloured, and weevil-damaged seeds.

PACKAGING AND LABELLING

Material	Purpose	Notes
Polypropylene bags	Bulk storage	Use clean, dry bags
Hermetic bags (e.g., PICS, SuperGrain)	Long-term storage without chemicals	Prevents oxygen entry and weevil infestation
Airtight plastic containers	Small-scale storage	Ideal for household use or seed saving

Label clearly:

- Variety
- Date of harvest
- Moisture content (if known)
- Treatment status (e.g., fumigated, untreated)

STORAGE PRACTICES

Key storage conditions:

- Dry environment
- Cool temperatures
- Airtight containers
- Protection from pests and rodents

STORAGE OPTIONS

Method	Effectiveness	Duration
Hermetic storage (e.g. PICS bags)	Excellent	Up to 12 months
Traditional bags + pesticide (e.g. Actellic Super)	Moderate	3–6 months
Airtight plastic drums	Very good	6–9 months
Granaries (mud/clay)	Poor	Use only if dry and pest-proofed

STORAGE PEST MANAGEMENT

Major storage pest: *Callosobruchus maculatus* (cowpea bruchid)

Control Method	Description
Sun-drying (pre-storage)	Reduces pest load
Hermetic bags	Starves pests of oxygen
Natural insecticides (e.g. neem leaf powder, ash)	Traditional but less reliable
Synthetic pesticides (e.g., phostoxin, Actellic)	Use under guidance, especially for seed/grain trade
Freezing (for small quantities)	Kills insects and eggs

Never store new harvest with old cowpea unless the latter is pest-free.

VALUE ADDITION OPTIONS

- **Cleaning and bagging for sale** to urban markets
- **Milling** into cowpea flour (used for moi moi, akara)
- **Fortified blends** (cowpea + maize/sorghum for baby food)
- **Export-grade packaging** for dried cowpea in sacks or vacuum-sealed containers

10. MARKETING, ECONOMICS, AND PROFITABILITY OF COWPEA FARMING

Cowpea is one of the most marketable and economically valuable legumes in Nigeria. With proper production and market planning, cowpea farming can be a reliable source of income for smallholder and commercial farmers alike. This chapter outlines market opportunities, economic analysis, pricing, and profitability strategies.

MARKET OPPORTUNITIES FOR COWPEA

Cowpea is in high demand across Nigeria and West Africa for its:

- **Grain (dried seeds)** – staple food for homes, restaurants, and food processors
- **Green pods** – sold in fresh vegetable markets
- **Fodder (leaves/stems)** – used as livestock feed
- **Processed products** – *akara*, *moi moi*, flour blends
- **Seed sales** – improved or certified seed for other farmers

Key Cowpea Market Segments:

- **Local markets** (farm gate, rural/urban markets)
- **Regional markets** (urban centres like Kano, Ibadan, Lagos, Abuja)
- **Industrial buyers (flour mills, processors, exporters)**
- **Institutional buyers** (schools, NGOs, food aid agencies)

SEASONAL PRICE TRENDS

Cowpea prices are highly seasonal:

Season	Availability	Price Trend
Harvest (Oct–Dec)	High supply	Lowest prices
Dry season (Jan–Apr)	Moderate	Prices begin to rise
Off-season (May–Aug)	Scarcity	Highest prices

Profit tip: Store part of the harvest and sell during scarcity (March–July) for higher profits.

ECONOMIC ANALYSIS OF COWPEA FARMING

Example: One-Hectare Rainfed Cowpea Farm (2025 estimates)

Item	Cost (₦)
Land clearing and preparation	30,000
Seed (20 kg @ ₦4,500/kg)	90,000
Fertiliser + inoculants	25,000
Planting labour	15,000
Weeding (twice)	20,000
Pest control (3 sprays)	15,000
Harvesting and threshing	20,000
Bags and transport	10,000
Miscellaneous	10,000
Total Cost	**₦235,000**

Expected Yield:

- Average yield: 800–1,200 kg/ha (traditional)
- Improved practices: up to 1,500–2,000 kg/ha

Revenue Estimate:

- Sale price (off-season): ₦800–₦1,000/kg
- Total income (1,200 kg @ ₦900/kg) = **₦1,080,000**

Net Profit:

- ₦1,080,000 – ₦175,000 = **₦905,000**

Profit Margin: Over 500% if managed well

Profit increases with:

- Yield (use of improved seeds and practices)
- Proper storage
- Access to premium markets

MARKETING CHANNELS AND STRATEGIES

Channel	Advantages	Challenges
Farm gate	Easy, quick sales	Low price
Local markets	Better price	Transportation, competition
Contract sales (processors/exporters)	Stable market, premium price	Requires quality, volume, consistency
Cooperatives and farmer groups	Better bargaining power	Coordination required
Online/digital platforms	Expanding opportunities	Requires tech know-how, trust-building

Strategies for Success:

- Join a **cowpea farmer cooperative** or cluster
- **Bulk and grade** produce for better pricing
- Use **branding and packaging** for niche or urban markets
- Store cowpea and **time sales** for peak prices
- Explore **value addition** (milling, flour, snack products)

VALUE ADDITION AND PROCESSING OPPORTUNITIES

Product	Target Market	Value Potential
Cowpea flour	Urban homes, restaurants	2× raw grain price
Moi moi mix	Ready-to-cook market	High demand in cities
Roasted/fried snacks	Informal markets	Popular street food
Packaged seeds	Other farmers, agro-dealers	High return with certification
Blended weaning foods	NGOs, health programmes	Social impact and profit

Investing in small-scale processing equipment can significantly increase income for farmer groups or entrepreneurs.

ACCESS TO FINANCE AND CREDIT

Financing is crucial for scaling production and accessing markets.

Sources:

- **Microfinance banks**
- **Agricultural cooperatives**
- **Government schemes (e.g. CBN Anchor Borrowers Programme)**
- **Input credit providers (e.g. Thrive Agric, Babban Gona)**

Tips for Accessing Loans:

- Keep **farm records** and profit estimates
- Join a **registered farmer group**
- Apply early in the season
- Consider **crop insurance** to protect against losses

RISKS AND MITIGATION IN MARKETING

Risk	Mitigation Strategy
Price crash at harvest	Store and sell off-season
Poor product quality	Harvest on time, dry well, use good storage
Middlemen exploitation	Sell in groups or explore digital platforms
Market rejection	Meet buyer specifications (clean, graded, well-packed)

11. CLIMATE-SMART AND SUSTAINABLE COWPEA FARMING

Climate change is affecting rainfall patterns, temperatures, and pest populations in Nigeria, making sustainable and climate-smart farming practices essential for long-term productivity. Cowpea, though drought-tolerant, must be cultivated using resilient and environmentally friendly methods to ensure continued success.

WHAT IS CLIMATE-SMART AGRICULTURE (CSA)?

Climate-smart agriculture is an integrated approach that:

- **Increases productivity** sustainably
- **Enhances resilience** (adaptation to climate change)
- **Reduces greenhouse gas emissions** where possible
- **Improves livelihoods and food security**

CHALLENGES OF CLIMATE CHANGE FOR COWPEA FARMERS

Climate Issue	Impact on Cowpea
Erratic rainfall	Poor germination, drought stress during flowering
Rising temperatures	Increased flower drop and shorter growing season
New pest outbreaks	More attacks by Maruca, aphids, thrips
Soil degradation	Reduced fertility, poor yields
Flooding or late rains	Root rot, delayed harvest, seed spoilage

CLIMATE-SMART PRACTICES FOR COWPEA FARMING

1. Use of Early-Maturing and Drought-Tolerant Varieties

- Select improved cowpea varieties such as:
  - **IT89KD-288** (early maturing, drought-resistant)
  - **SAMPEA 14**, **SAMPEA 15** (developed for savannah regions)

2. Conservation Agriculture

- **Minimum tillage:** Reduce ploughing to preserve soil structure and moisture.
- **Cover cropping:** Plant cowpea as a cover crop to protect soil and fix nitrogen.
- **Crop residue retention:** Leave plant materials on the field after harvest to reduce erosion.

3. Intercropping and Crop Rotation

- **Intercrop with maize, sorghum, or millet** to optimise land use and reduce pest pressure.
- **Rotate with cereals** to break disease cycles and improve soil health.

4. Efficient Water Management

- **Plant early** at the onset of rains to make full use of moisture.
- **Ridge planting** in flood-prone areas improves drainage.
- **Mulching** conserves moisture and suppresses weeds.

5. Integrated Pest Management (IPM)

- Use **resistant varieties** and **natural enemies** (e.g. lady beetles against aphids)
- Apply **botanical sprays** (neem extract) to reduce chemical use
- Use **light traps** or **pheromone traps** to monitor insects
- Spray chemicals only when pest population crosses economic threshold

6. Soil Fertility Enhancement

- Apply organic manures (compost, poultry droppings)
- Use **biofertilisers** or **rhizobium inoculants** to boost nitrogen fixation
- Practice soil testing before planting to guide nutrient application

7. Agroforestry and Windbreaks

- Plant **trees or shrubs** (e.g., *Gliricidia*, *Neem*) around cowpea fields:
  - Reduce wind erosion
  - Provide shade and organic matter
  - Act as habitat for beneficial insects

REDUCING POST-HARVEST LOSSES SUSTAINABLY

- Dry cowpea on **raised racks or tarpaulin** (not bare ground)
- Use **hermetic bags** instead of pesticide-laced bags
- Store in **well-ventilated, rodent-proof** structures

Sustainable storage helps reduce pesticide use, preserves grain quality, and protects consumer health.

FARM-LEVEL CARBON FOOTPRINT REDUCTION

- Limit use of synthetic chemicals
- Adopt **manual or animal-powered tools** where feasible
- **Compost crop residues** instead of burning them
- Plant **trees on or around farms** to absorb CO_2

COMMUNITY AND INSTITUTIONAL SUPPORT

Farmers can access training and support for CSA from:

- The Foundation for Sustainable Smallholder Solutions' Farmers' Hubs across Nigeria.
- Agricultural Development Projects (ADPs)
- Nigerian Agricultural Extension System
- Other NGOs (e.g. Sasakawa Global 2000, IFDC)
- National Agricultural Research Institutes (e.g. IITA, IAR)
- Climate-smart cooperatives and demonstration farms

BENEFITS OF CLIMATE-SMART COWPEA FARMING

Benefit	Description
Increased resilience	Better survival in drought or erratic rainfall
Higher yields	Even in poor seasons
Reduced costs	Less dependence on synthetic inputs
Better market access	Especially for sustainably grown or organic produce
Improved soil health	Long-term productivity
Enhanced food security	Reliable harvests for family and market

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12. RESOURCES

Access to the right information, support services, and credible institutions is essential for cowpea farmers aiming to improve productivity, adopt new technologies, and market their produce effectively. This chapter provides a curated list of key organisations, service providers, training institutions, and recommended materials for continuous learning.

KEY GOVERNMENT INSTITUTIONS AND RESEARCH CENTRES

Institution	Role	Contact / Location
National Agricultural Extension and Research Liaison Services (NAERLS)	Extension services and farmer training	ABU Zaria, Kaduna State – naerls.gov.ng
International Institute of Tropical Agriculture (IITA)	Research on improved cowpea varieties, IPM, agronomy	Ibadan, Oyo State – iita.org
Institute for Agricultural Research (IAR)	Cowpea breeding and trials for Northern Nigeria	ABU Zaria, Kaduna State
National Agricultural Seeds Council (NASC)	Seed certification, quality control	Sheda, Abuja – seedcouncil.gov.ng
Federal Ministry of Agriculture and Food Security (FMAFS)	Policy, subsidy programmes, and farmer support	Abuja – fmard.gov.ng

AGRO-FINANCE INSTITUTIONS AND CREDIT PROVIDERS

Organisation	Type of Support	How to Access
Bank of Agriculture (BoA)	Loans for smallholder and commercial farmers	Apply via local branches or boanig.com
NIRSAL Microfinance Bank	Input financing, equipment leasing	nmfb.com.ng
CBN Anchor Borrowers Programme	Seeds, fertilisers, and finance to cluster farmers	Through farmer groups, CBN, or participating banks
Thrive Agric	Input financing + market linkage	thriveagric.com
Babban Gona	Credit, training, and inputs for youth farmers	North-central and Northwest – babbangona.com

BENEFITS OF CLIMATE-SMART COWPEA FARMING

Platform / Group	Services Offered	Location/Contact
Sasakawa Africa Association (SAA Nigeria)	On-farm demonstrations, farmer field schools	sasakawa-africa.org
AGRA (Alliance for a Green Revolution in Africa)	Policy, funding, training	Works with local partners – agra.org
Young Professionals for Agricultural Development (YPARD Nigeria)	Youth empowerment, agri-leadership	ypard.net
Farmers' Development Union (FADU)	Cooperative formation, credit and market linkages	Nationwide
FMARD Farmers' Help Desk	Guidance and information support	Available through FMARD offices and extension agents

BENEFITS OF CLIMATE-SMART COWPEA FARMING

App / Platform	Functionality	Access
CropIT / Agropartnerships	Farm monitoring, GPS mapping, financial planning	Android / iOS
Hello Tractor	Hire farm equipment via mobile	hellotractor.com
AgroMarketDay	Find agro-dealers and markets near you	Android
Tulaa / iProcure	Buy inputs, access advisory services	tulaa.io
eWallet by FMARD	Input subsidy and voucher system	USSD code by registration

FINAL WORDS FOR THE NIGERIAN COWPEA FARMER

Access to accurate information, quality inputs, reliable markets, and technical support are keys to success in cowpea production. By staying connected with research institutions, extension services, farmer cooperatives, and technology platforms, Nigerian farmers can transform cowpea into a profitable, climate-smart, and food-secure enterprise.

If you are ready to begin, visit any of our Farmers' Hubs in your location to get everything you need to start, including inputs, knowledge, and support for pre-cultivation, cultivation, and post-harvest stages. SEE THE NEXT PAGE FOR HUB LOCATIONS.

Keep learning. Stay organised. Farm smart. Prosper.

FARMERS' HUB LOCATION

State	LGA	Community	Hub Name	Hub Manager	Phone Number
Abuja	Kwali	Yangoji	ROSEROKA AGRISERVICES CENTRE	Roseline Omoroka	8060797010
Abuja	Gwagwalada	Gwagwalada	ETEMA FARMS AGRISRVICES CENTER	Gladys Etema	8130790059
Abuja	Kuje	Chibiri	AJIMAFARM AGRISERVICES CENTRE	Hannah Mairiga	7031917545
Benue	Makurdi	Apir	CONMA AGRISERVISES HUB	Aorga Kator Jeremiah	9131582213
Benue	Gboko	Akaaha	LIGSON AVISA FARMERS HUB	Terry Ligom	7034595275
Benue	Gboko	Bar Stream	FA-TOM SULE AGRISERVICES CENTER	Comfort Loho	8149046855
Benue	Gboko	Mbashimbe Ipav	FARMERS HUB MBASHIMBE IPAV	Thomas Azenda	8104442350
Benue	Buruku	Tyav Abuta	VEEKPE AGRISERVICES HUB	Gabriel Aondoaver Veekpe	8082362651
Ekiti	Ekiti West	Erio Ekiti	TAPFA ERIO FARMERS HUB	Ifelola Olubumi	8036365504
Ekiti	Ado	Erifun	ERIFUN FARMERS INOVATIVE HUB	IFEOLUWA ADETUNJI	7035030333
Ekiti	Egbedore	Awo	FARMERS HUB AWO	Ezeh Chidinma Mary	8068393919
Jigawa	Kikirsama	Turabu	HARUNA TURABU & SONS ENT.	Shuaibu Haruna	8107305010
Jigawa	Birnin Kudu	Juwan Tudu	SABO SAGIRU AGRISERVICES CENTRE.	Sabo Sagiru	7038097734
Jigawa	Taura	Taura	GARBA UBALE AGRISERVICES CENTRE.	Garba Ubale	8033142340
Kaduna	Ikara	Pampaida	RIFKATU EMMANUEL AGRISERVICES CENTRE	Rifkatu Emmanuel	8021330230
Kaduna	Makarfi	Tasha-Ruwa	MAIMUNATU NADAB AGRISERVICES CENTRE	Maimunatu Nadabo	8160088774
Kaduna	Giwa	Shika	Farmers Guide Agriservices Center	Jafar musa	8060495738
Kaduna	Lere	Saminaka	NATHAN JINDA AGRISERVICES CENTER	Nathan Jinda	9074650001 8117088876 8031587172
Kaduna	Kabau	Zumtum	FARMERS HUB ZUMTUM	Rabiu Aliyu	8023166272 8094899511

FARMERS' HUB LOCATION

State	LGA	Community	Hub Name	Hub Manager	Phone Number
Kaduna	Samaru	Sabongari	FARMERS HUB SAMARU	Dr Dahiru Jibrin Mohammed	7038785335
Kano	Bichi	Mazarawa-aawa	YUSUF HALIRU AGRISERVICES CENTRE	Yusuf Haliru	8026394788
Kano	Minjibir	Wasai	SALISU SHUAIBU AGRISERVICES CENTRE	Salisu Shuaibu	7045644179
Kano	Dawakin Tofa	Yanshado	MUKTAR GARBA AGRISERVICES CENTRE	Muktar Garba	8084821019
Kano	Dawakin Kudu	Kofar Arewa	GARBA HALADU AGRISERVICES CENTRE	Garba Haladu	8067353808
Kano	Bagwai	Bauje	YUSUF JADDA AGRISERVICES CENTRE	Yusuf Jadda	8036015669
Kano	Tofa	Yansabo	AMINU LIMAN AGRISERVICES CENTRE	Aminu LIMAN	7030211425
Kano	Makoda	Gawon Bature	MUSA USMAN AGRISERVICES CENTRE	MUSA Usman	8067180855
Kano	Kura	Dan Hassan	DAN JUMAI AGRISERVICES CENTRE	Abdurazaq Alhassan	7030504709
Kano	Kura	Imawa	MAAP NIGERIA LIMITED AGRISERVICES CENTRE	latifat Ajeigbe	8022967565
Kano	Bunkure	Tugugu	TALATU IDRIS AGRISERVICES CENTRE.	Talatu Idris	9061742624
Nasarawa	Lafia	Farin kasa	RUTHYFARINKASA AGRISERVICES CENTRE	Ruth Yakubu	8065563574
Nasarawa	Obi	Murya	LIFE RELIEF AVISA FARMERS HUB	Roland Akpu	8136213351
Nasarawa	Karu	Zango	AJAKO AVISA FARMERS HUB	Gambo Ajako	8051215253
Nasarawa	Doma	Angwan Father	OTU OSEYI RICE PROCESSING AGRISERVICES CENTER	Jibril Doma	8031851337
Nasarawa	Lafia	Ashangwa	AZIHMENSON FARM & AGRISERVICES CENTER	Alexandra Awuka	8034998347
Nasarawa	Nasarawa Egon	Nasarawa Egon	FRUITFUL FARMERS HUB	Theresa Markus	8065660314

FARMERS' HUB LOCATION

State	LGA	Community	Hub Name	Hub Manager	Phone Number
Ogun	Yewa North	Ayetoro	LEMMY SUCCESS AGRISERVICES CENTRE	Lekan Olusesan	8067524901
Ogun	Odogbolu	Odogbolu	GREENALY AGRISERVICES CENTRE	Cynthia Ogba	9039599018
Ogun	Ijebu Ode	Odolewu	FOURLAS FOODS AGRISERVICES CENTRE	Sedun Wasiu	8028071609
Ogun	Obafemi-owode, Kobape	Konadun Village	YOMITE FARMS & AGRISERVICE CENTER	Abdulrahman Abdulraheem	80612693728103859444
Ondo	Akure	Adofure	FUNMABE MULTIVENTURES AGRISERVICES CENTRE	Festus Ogundele	8033748669
Ondo	Idanre	Idanre	LOYE AGRISERVICES CENTRE	Adeloye Ogunsakin	7069699213
Ondo	Akure North	TEMITOPE	ELIZAVIC AGRO & AGRISERVICES CENTER	Victor Akinseye	8060361278
Ondo	Akure South	ILERE	EMMATEX RESOURCE FACILITY AGRISERVICES CENTRE	Taiwo Akintade	8105574770
Osun	Osogbo	Oshogbo	LAG INNITIATIVE AGRIBUISNESS FARMERS HUB	Ajewole Blessing .E.	7046371162
Oyo	Atisbo	Ago-are	SUNDAM AGRISERVICES CENTER	Adedamola Olasunkanmi	9033390686
Oyo	Lagelu	Aboke Village	AGRICWAS FARM & AGRIBUSINESS	wasiu Ajibola	8149698844
Oyo	Akinyele	Moniya	TEP AGRISERVICES CENTRE	Umar Khadija	7061364728
Oyo	Akinyele,	Ijaye Farm Settlement	TAN-KUNFADES MULITI BUISNESS & AGRISERVICES HUB	Sunday Adebayo	8051446150
Plateau	Bassa	Kitai-angol; Bassa	JAM INTERGRATED FARMS	Jummia Madaki	8034425315
Plateau	Riyom	Sham	DANGWOL INTERNATIONAL AGRISERVICES CENTER	Dalyop Dachung	8036210052

CONTACT US

WE ARE ACTIVELY SEEKING COLLABORATIONS WITH COMPANIES, INSTITUTIONS, AND ORGANISATIONS. CONTACT US TODAY IF YOU'RE INTERESTED DRIVING SUSTAINABLE AGRICULTURAL SOLUTIONS

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