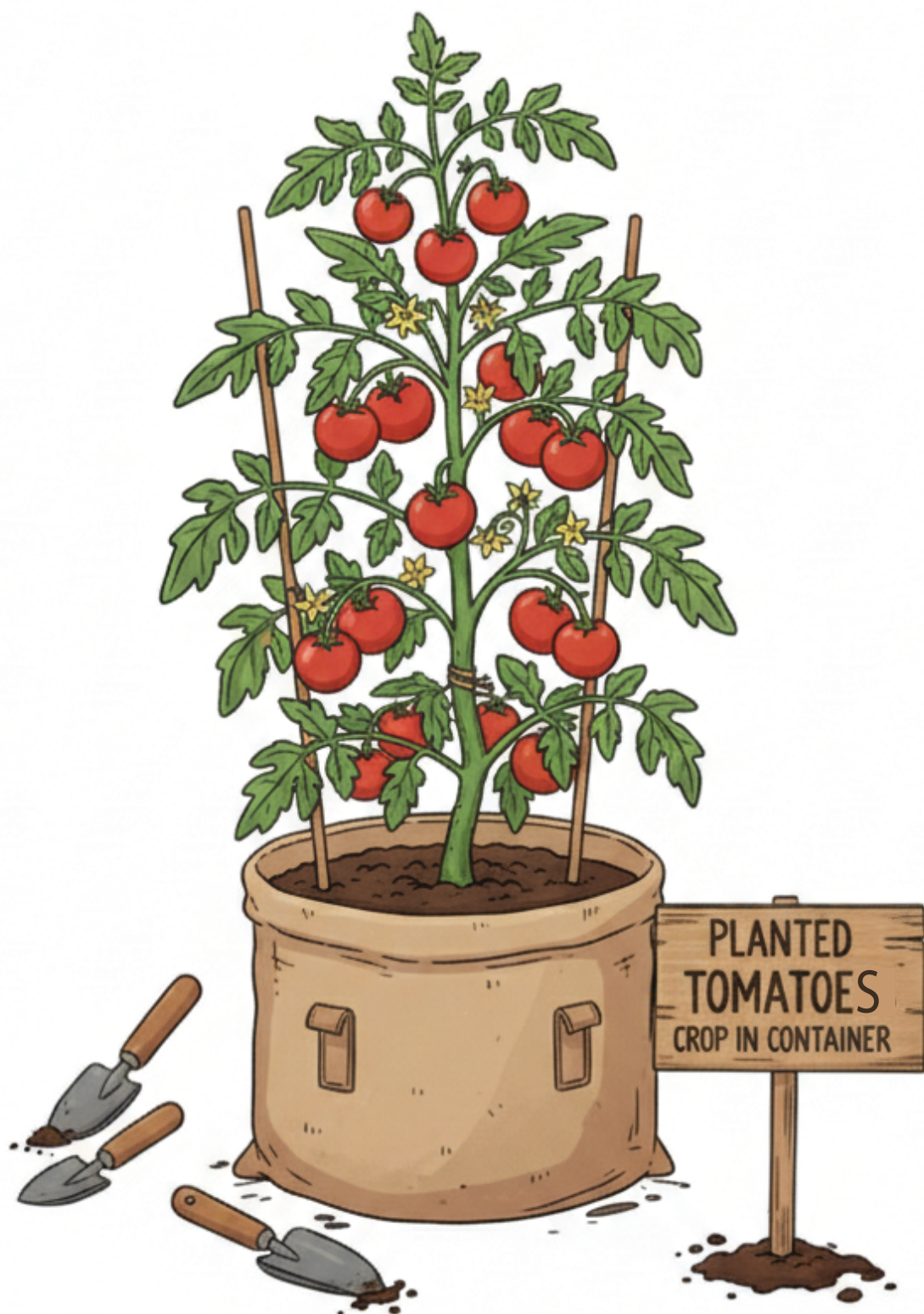


SIMPLE FARMER'S **GUIDE** **FOR URBAN FARMING**

GROWING IN SACKS, SMALL CONTAINERS & VERTICAL SPACES FOR
YOUR KITCHEN GARDENS, HOME SURROUNDING & LIMITED SPACE.



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FOREWORD

This manual has been developed in response to the growing need for practical, accessible, and climate-smart solutions to food production in Nigeria. With rising food prices, rapid urbanisation, shrinking land availability, and increasing pressure on household incomes, many families are searching for simple and reliable ways to grow some of their own food. This guide is designed to support households and communities especially those with limited space in adopting small-scale food production techniques that are both affordable and sustainable.

Whether living in densely populated urban centres, managing only a small backyard or balcony, or residing in low-income or internally displaced persons (IDP) communities, users will find clear and practical instructions for cultivating essential crops such as maize, tomatoes, potatoes, peppers, and leafy vegetables. The manual presents easy-to-follow methods including sack farming, container gardening, vertical pipe systems, and basic household composting approaches already proving effective for many Nigerian households seeking greater food autonomy.

This resource also supports national and community-led efforts to strengthen food security and resilience. At a time when many Nigerians face recurring challenges related to high food costs, climate change impacts, and limited access to farmland, home and community gardening offer a practical pathway for improving nutrition, reducing dependency, and enhancing local food systems. The manual further aligns with ongoing government and civil society initiatives that encourage home gardening as a tool for empowerment and sustainable living.

It is our hope that this manual will enable more households to take meaningful steps towards achieving food security, building resilience, and contributing to a healthier, greener, and more sustainable Nigeria.

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ACKNOWLEDGMENTS

We extend our sincere appreciation to all individuals and institutions whose contributions made the development of this manual possible. This work is the product of collective expertise, field experience, and a shared commitment to improving food security and resilience across Nigeria.

We acknowledge the invaluable contributions of our technical experts and collaborators. Special appreciation goes to Mr. John Favour Ayomipo and his Green Academy cohort, whose insights, creativity, and practical knowledge helped shape the content of this manual. Their commitment to training IDP communities in Abuja and supporting rural households with small-space agriculture solutions has significantly enriched the relevance and impact of this resource.

We also express profound gratitude to the Heinrich Böll Foundation (hbs) Nigeria, whose unwavering support has strengthened ongoing efforts to promote sustainable and safe food production in the country. Their investment in knowledge tools, community engagement, and environmental advocacy continues to enhance Nigeria's transition toward more resilient and climate-smart food systems.

Our appreciation extends to the staff and members of the Be The Help Foundation, led by Mr. Samuel Kwasari, who manages the agroecology and afforestation farm in Abuja. This farm has become a vital learning hub and a practical demonstration Centre for agroecological practices in Nigeria. We are grateful to the entire team, especially Mr. Barnabas Iwan Aondover for facilitating the community training and many others, whose dedication, field support, and belief in community empowerment have contributed immensely to the success of this manual and related initiatives.

To all partners, contributors, and community participants: thank you for your trust, your collaboration, and your commitment to building a more food-secure and sustainable Nigeria. Your efforts have been instrumental in bringing this project to life.

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INTRODUCTION

Growing food in sacks, buckets, drums, vertical systems and small gardens is an easy, space-saving method, perfect for Nigerian homes with limited space. Growing food in sacks is practical, affordable, and productive for every household, including urban homes, internally displaced camps, and can help boost food security and save money in Nigeria.

This manual focuses on yams, potatoes, pepper, tomatoes, vegetables (like ugu, spinach, lettuce), and ginger. Okro, beans, corn, groundnut, curry leaves, and cocoyam will also be covered in this manual. The steps use materials available locally.



WHY GROW FOOD IN SACKS OR SMALL CONTAINERS?

- **Space-saving:** Grow food even if you only have small land, backyard, balcony, or rooftop.
- **Water-efficient:** Sacks retain moisture and reduce water usage.
- **Less pests & diseases:** Raised sacks make it easier to control and limit access for pests.
- **Year-round farming:** You can plant and harvest anytime, regardless of season.
- **Easy access to fresh food:** Homegrown crops are healthier/whole, fresher, and cheaper.

WHAT YOU NEED (GENERAL MATERIALS)

- ✓ Sacks, PVC pipes, or large polythene bags (old cement bags, rice sacks, beans bags, broken buckets).
- ✓ Good soil (loamy soil mixed with compost/manure).
- ✓ Crop seeds/tubers (yam setts, potato stem cuttings, vegetable seeds, pepper/tomato seeds, ginger rhizomes).
- ✓ Watering cans/bucket.
- ✓ Stakes/bamboo (for supporting climbing plants).
- ✓ Ash (optional, rub on yam cut pieces to prevent rot).
- ✓ Course sharp sand/gravels (for bottom drainage).



HOW TO USE THIS GUIDE

Each crop below uses the same short format so you can compare quickly.

The manual provides - Quick facts (why grow it, sunlight needs) - Best containers (what works well) - Soil / mix (simple recipe) - Step-by-step planting (numbered) - Watering & feeding (practical schedule) - Care & pests (quick fixes) - Harvest & storage (how to know when ready) - Quick tips (local, low-cost suggestions)



GENERAL CONTAINER RULES (APPLY TO ALL CROPS):

- ✓ Use containers with drainage holes;
- ✓ Leave 3–5 cm from soil to rim so watering doesn't spill;
- ✓ Use well-rotted compost or manure (not fresh);
- ✓ Avoid waterlogging except for rice;
- ✓ Rotate where possible; label containers.

BASIC CONTAINER SOIL MIX (WORKS FOR MOST CROPS):

- ✓ 2 parts good topsoil + 1 part well decomposed compost/manure + 1-part coarse sharp sand or fine gravel or coconut coir/coco peat (Mix well).
- ✓ For light-demanding root crops (ginger, groundnut, cocoyam, turmeric, etc.) add more sand/loose material for good root penetration.

Cheap containers & vertical ideas: old fertilizer sacks (strong), 20–25L buckets, 50–200L drums cut in half, crates lined with plastic, PVC pipes drilled with holes for towers, stacked buckets, trellised pallets.

Make drainage holes and support climbing crops with a simple bamboo/wood trellis.

SUMMARIZED STEP-BY-STEP METHODS (LOCAL & SIMPLE)

1. PREPARE SACKS OR CONTAINERS

- Get big, strong sacks (cement, rice, beans, or large polythene bags).
- Punch 6-12 holes at the bottom/sides for water drainage.
- Put 2-4 inches layer of pebbles or stones at the bottom for drainage.

2. PREPARE SOIL MIX

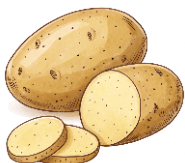
- Mix loamy soil with compost or animal manure. Aim for about half sack per plant.
- Fill the sacks halfway, add water to moist the soil, then fill to about $\frac{3}{4}$ level.
- For vertical sack gardens, layer soil and water as you fill (help roots and moisture distribution).
- Allow a few days (3-5) to cure in case of the use of chicken & cattle/cow dungs/manure.

3. PLANTING



a. Yam

- Cut yam tubers into small chunks ("mini setts"), rub with ash.
- Bury each piece in the middle of the sack 6-8 inches deep.
- Water and place outside to get sunlight.
- Add a stick for vines to climb 14-21 days after germination/sprouting.



b. Potatoes

- Irish potatoes
 - Use sprouted potato pieces ("eyes").
 - Plant 2-3 inches deep in the sack, space apart.
 - Cover with soil and water.
- Sweet potatoes: use the leave stems (10-15cm) to plant.



c. Pepper/Tomato

- Start seeds in a nursery (tray, carton, small pot or on flat soil nursery bed, 1m by 50cm is fine).
- When seedlings are about 3 inches tall, transplant them into the sacks.
- Plant in holes made on the side or top of the sack, press the soil gently.
- Use sticks/bamboo for support.



d. Vegetables (Ugu-fluted pumpkin, Lettuce, Spinach/amaranth)

- Sow seeds directly or transplant seedlings.
- For vertical sacks, insert seedlings in holes cut into the sides for leafy veggies.
- Water well.



e. Ginger

- Use fresh ginger rhizomes (setts).
- Bury 2 inches deep in moist soil in the sack.
- Mulch with grass straw, leaves, etc.
- Place bag in a sunny spot.

4. CARE AND MANAGEMENT

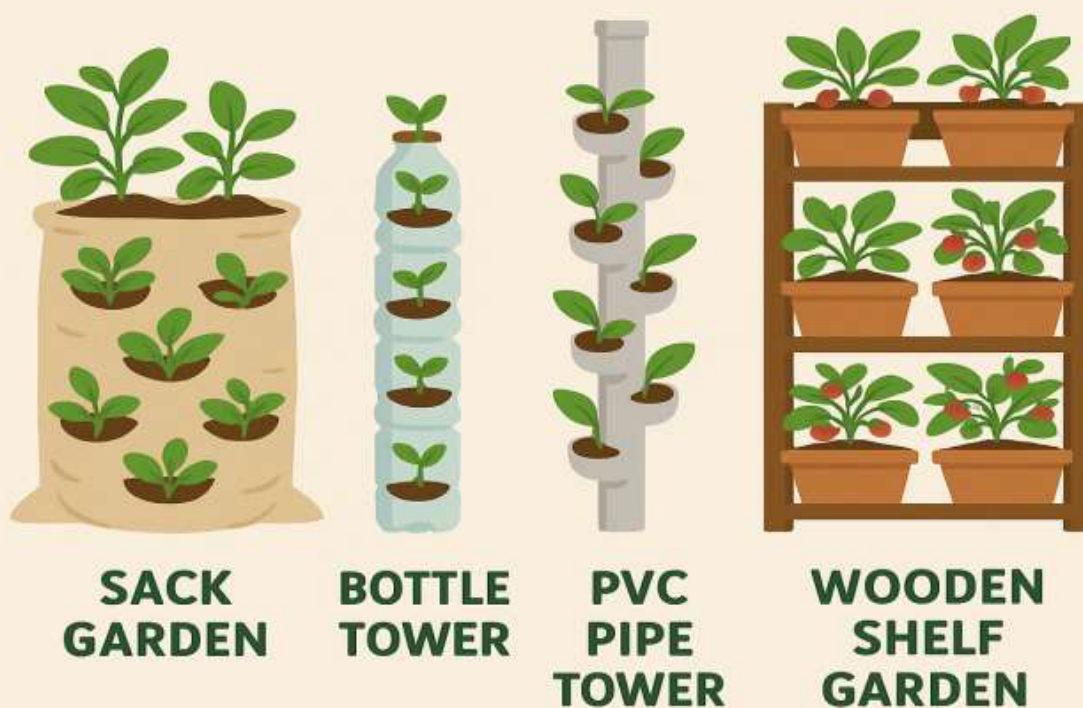
- Water regularly (sacks dry faster, check soil moisture every morning).
- Keep the sacks where there is enough sunlight and airflow (minimum 5-6 hours a day).
- Add more compost/manure every 3-4 weeks.
- For yams/tomatoes/pepper, stake/support the plants with sticks.
- For multiple crops in a sack: Plant root crops at the top, leafy vegetables on the sides.

5. HARVEST

- Yam: Harvest after 6-8 months when leaves start drying or are 80-90% yellow.
- Potatoes: Harvest after 3-4 months; gently dig out tubers.
- Pepper/Tomato: Begin picking ripe fruits after 3-4 months. Continue until plants dry.
- Vegetables: Cut or pick leaves as needed (usually 4-8 weeks after planting).
- Ginger: Harvest rhizomes after 6-8 months.

LOCAL TIPS

- Use manual labour if needed to prepare soil and fill sacks.
- Re-use old sacks, buckets, or plastic containers.
- Simple ash dust prevents tuber rotting.
- Home-made compost boosts yield.
- Water sack gardens early morning or late evening to retain moisture.
- Place sacks where rain can help, but avoid waterlogged areas.





CROP-BY-CROP WITH COMPLETE STEPS FOR GROWING AND PEST MANAGEMENT TIPS FOR VERTICAL FARMING

YAM (WHITE/YELLOW/WATER YAM)

STEPS:

1. Choose Healthy Yam Setts:

- Cut yam into chunks (mini-setts, each 6-8inches long), rub cut surfaces with wood ash.

2. Prepare Sack & Soil:

- Use sturdy, clean sacks (cement, rice, etc.).
- Punch holes at base and sides for drainage.
- Fill with rich loamy soil mixed with well-cured manure or compost, about $\frac{3}{4}$ full.

3. Planting:

- Bury yam setts in center, 2-3inches deep. For large sacks, space at least 12inches apart.
- Cover with soil, water gently.

4. Care:

- Water regularly, keep soil moist but not waterlogged.
- Young shoots need support: tie stem to stick or stake for climbing.
- Mulch top with dry leaves/grass.
- Always mulch with dry grasses/straws if possible

5. Harvest:

- Ready in 6-8months when leaves dry.

COMMON PESTS & MANAGEMENT:

- Armyworms, aphids, nematodes: Inspect leaves weekly; remove affected parts; apply neem oil spray or wood ash to soil.
- Scout delay for insect invasion
- Organic control: Use crushed neem seeds/cake mixed with cow urine/compost.
- Avoid waterlogging to prevent diseases.





POTATOES (IRISH/SWEET POTATO)

STEPS:

1. **Choose Sprouted Potato Pieces ("Eyes"):**
 - Cut into 2-3 inch chunks with 1+ eyes.
2. **Prepare Sack & Soil:**
 - Use 50-100 liter size sack. Punch holes for drainage.
 - Add stones/pebbles at bottom, fill with rich loose soil and compost half-way.
3. **Planting:**
 - Make 3-4 holes (at corners) in sack, insert pieces (sprout side up), shallow bury and cover.
 - Sweet potatoes: use the leave stems (10-15 cm) with at least 2 internodes to plant.
4. **Care:**
 - Water lightly, avoid soaking to prevent rot.
 - Add more soil as stems grow ("hilling").
5. **Harvest:**
 - 3-5 months after planting, dig out tubers gently.

COMMON PESTS & MANAGEMENT:

- Root grubs, aphids, leaf miners, potato beetles: Hand-pick and destroy pests; neem oil spray; use only well-cured manure.
- Rotate sack location each year to reduce root pests.

PEPPER (CHILI, BELL)

STEPS:

1. Start Seeds:

- Nurse seeds in small pots for 2-3 weeks.

2. Prepare Sack & Soil:

- Clean sack, add gravel bottom, fill with soil/manure mix.

3. Planting:

- Transplant seedlings, spacing 8 inches apart; also use sack sides if needed.
- Stake for support if fruits heavy.

4. Care:

- Water regularly, keep moist.
- Use compost tea every 4 weeks.

5. Harvest:

- Begins 3-4 months after planting.



COMMON PESTS & MANAGEMENT:

- Aphids, thrips, fruit flies, pod borers: Spray with neem oil or insecticidal soap; blue sticky traps for thrips; good field sanitation (remove fallen leaves/fruits).
- Crop rotation for soil pest control.
- Use only well-cured manure to avoid soil insects.

TOMATOES

STEPS:

1. Seed Nursery:

- Nurse seeds (1-3weeks), transplant seedlings (3" tall).

2. Prepare Sack & Soil:

- Use big sack, make "X" shaped incisions at sides for planting holes.
- Fill sack with soil and compost, push a thick stick down the center for watering.

3. Planting:

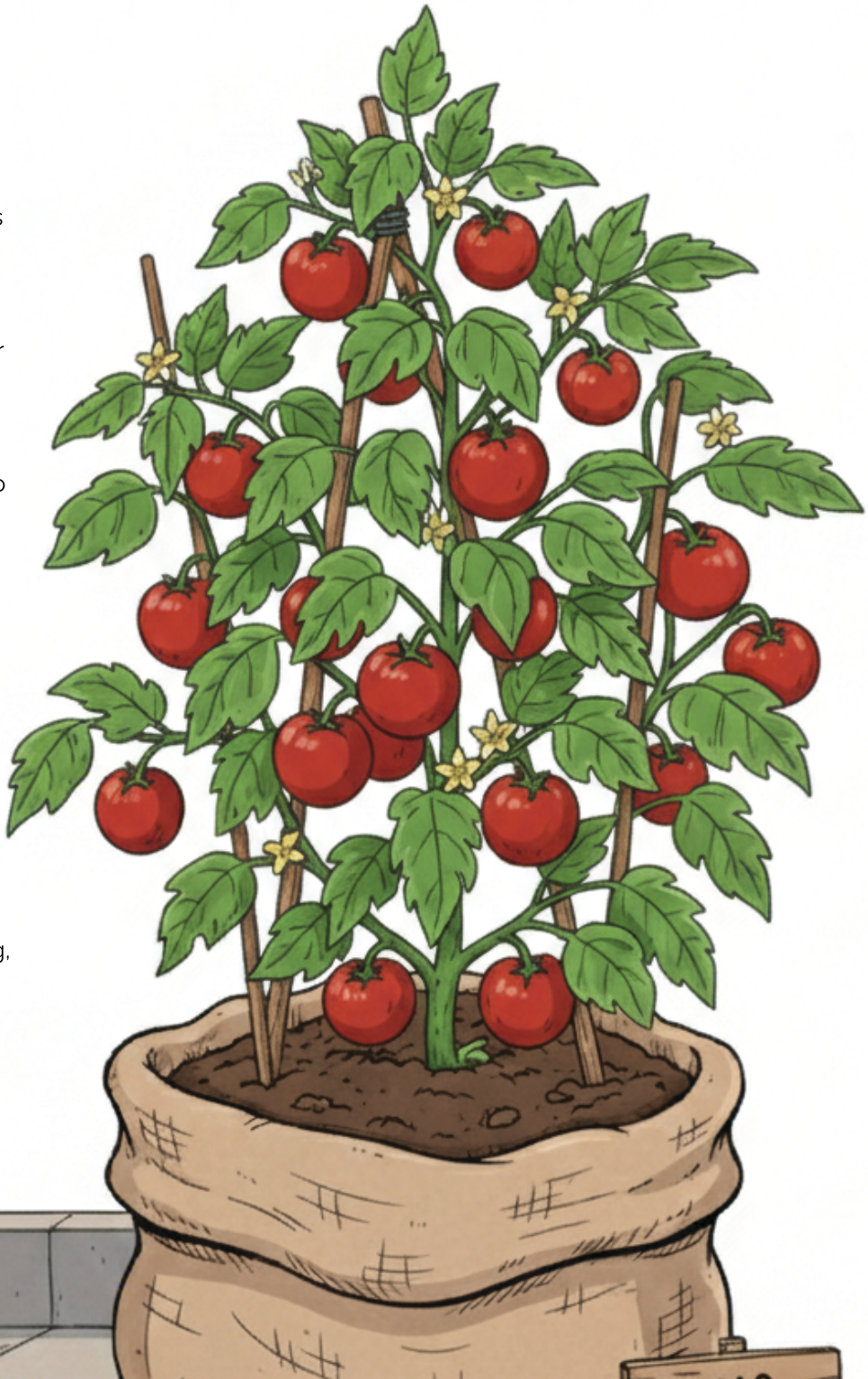
- Transplant seedlings into top and side holes (distance 4-5inches between plants).

4. Care:

- Water regularly (center and sides), prune side shoots.
- Stake or trellis with tensioned ropes for support as fruit sets.

5. Harvest:

- 3-4months after planting, harvest ripe fruits.



COMMON PESTS & MANAGEMENT:

- Aphids, caterpillars, fruit borers, whiteflies: Hand-pick pests, spray neem oil, prune infected leaves.
- Avoid overcrowding, keep sack ventilated.
- Remove infected plants and practice crop rotation if possible.

VEGETABLES (UGU-FLUTTED PUMPKIN, SPINACH, LETTUCE)

STEPS:

1. **Prepare Sack:**
 - Punch holes at sides, fill with soil-compost mix.
2. **Planting:**
 - Sow seeds on top and in holes, or transplant seedlings.
 - Space appropriately depending on variety.
3. **Care:**
 - Water daily; shade from harsh sun if needed.
 - Organic fertilizer every 2 weeks.
4. **Harvest:**
 - Cut leaves when mature (4-8 weeks after planting).



COMMON PESTS & MANAGEMENT:

- Leaf miners, caterpillars, aphids: Regularly inspect and remove affected leaves; spray with homemade pepper/soap solution or neem oil.
- Mulch to reduce weed spread.

GINGER

STEPS:

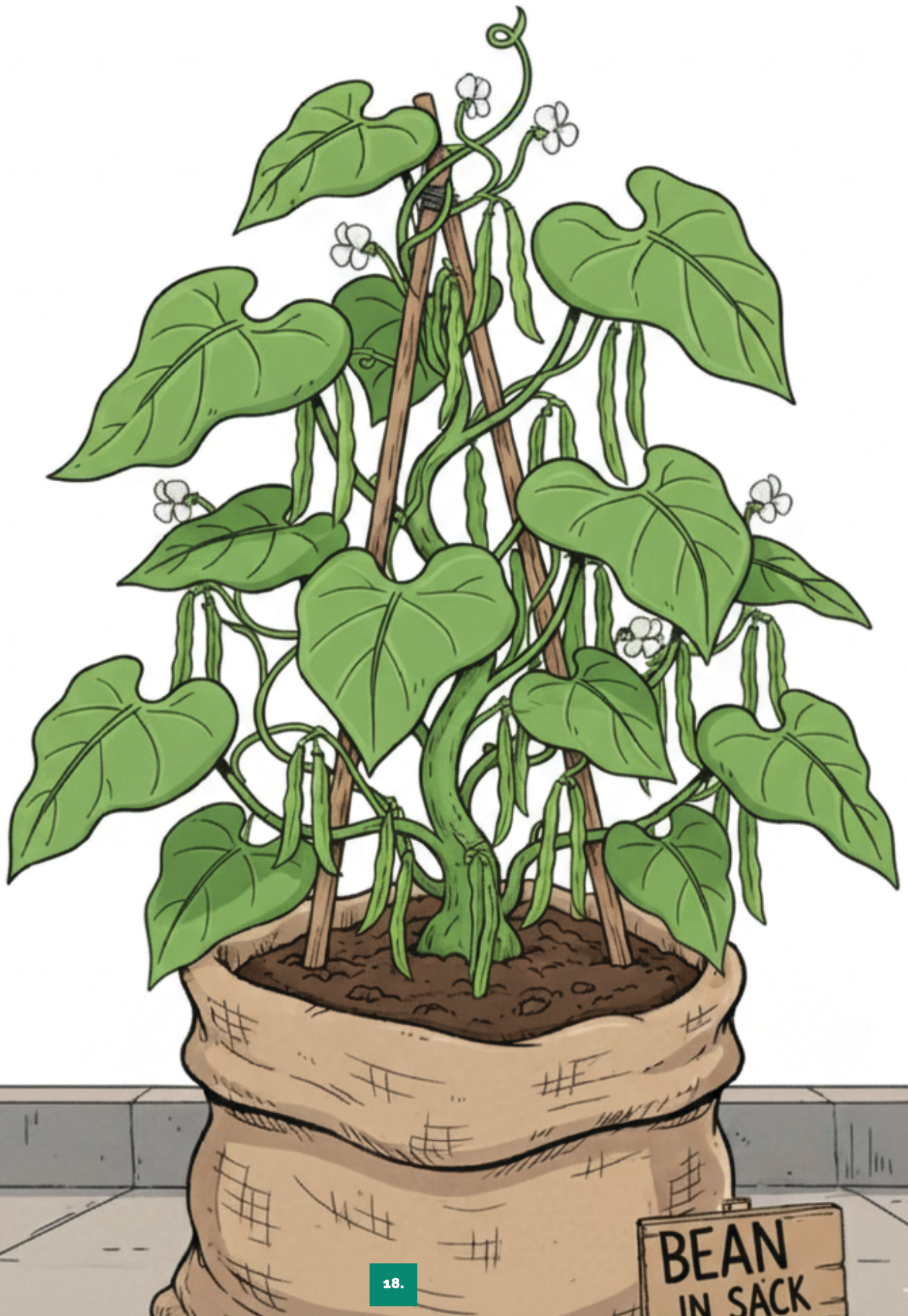
1. Choose Ginger Rhizomes(setts):
 - Cut into chunks with eye/bud.
2. **Prepare Sack:**
 - Use clean sack; punch holes for drainage.
 - Fill with loose soil/compost.
3. **Planting:**
 - Bury 2inches deep; buds facing up. Water.
4. **Care:**
 - Keep sack in warm, sunny area; water mildly.
 - Apply compost tea after 2months.
5. **Harvest:**
 - 6-8months after planting.



COMMON PESTS & MANAGEMENT:

- Rhizome rot, nematodes: Avoid overwatering; use well-aerated soil; rotate position yearly.
- Remove and burn affected plants.

OTHER CROPS



BEANS (COMMON BEANS)

Quick facts: Fast-growing legume, good source of protein; prefers full sun.

Best containers: 20–50L buckets, 50 kg sack (folded), grow-bag.

Soil: Basic mix (2:1:1). Add small handful of lime or wood ash if soil is acidic.

Planting (step-by-step):

1. Fill container leaving 3–5 cm gap. Make drainage holes.
2. Pre-soak seeds 6–12 hours to boost germination.
3. Sow 2–3 seeds per planting point, 2–3 cm deep. Space 10–15 cm between points.
4. Water gently to settle soil. Keep soil moist until seedlings establish.
5. After 7–14 days thin to the strongest plant per point.

Water & feeding:

- Water when top 2–3 cm dries (usually every 2–4 days in hot weather).
- Side-dress with compost at flowering.
- Beans fix nitrogen — avoid heavy N fertilizer.

Care & pests:

- Watch for aphids and leaf-spots.
- Spray neem tea or remove affected leaves.
- Stake if variety climbs.

Harvest:

- Pick pods when full but still tender.
- For dry beans, leave pods on plant until they brown and dry.

Quick tips:

- Rotate with non-legume crops.
- Use rhizobium inoculant if available for better nodulation.



OKRA

Quick facts: Heat-loving, fast yield; harvest pods young for best taste.

Best containers: 20–50L bucket or large sack (one plant per 20 L bucket, 3–4 plants per 50 kg sack spaced out).

Soil: Basic mix + extra compost for good fruiting.

Planting:

1. Fill container, press a hole 2 cm deep.
2. Soak okra seeds overnight (helps germination).
3. Plant 1–2 seeds per hole, thin to 1 plant per point after emergence. Space points ~25 cm apart.
4. Water to keep moist but not waterlogged.

Water & feeding:

- ✓ Keep evenly moist; deep watering once a week better than surface sprinkling.
- ✓ Side-dress with compost after first flush of pods.

Care & pests:

- ✓ Watch for aphids, flea beetles.
- ✓ Remove damaged leaves, handpick pests, use neem spray.

Harvest:

- ✓ Pick pods every 2–3 days when 4–8 cm long.
- ✓ Regular picking encourages more pods.

Quick tips:

- ✓ Cut pods early in the morning.
- ✓ Avoid over-watering that causes flowers to drop.





SWEET GROUNDNUT (PEANUT)

Quick facts: Legume with pegging habit — flowers above ground, pods form underground; likes loose sandy soil.

Best containers: Deep buckets (25 L+), 50–100 L drums, deep sacks (30–40 cm depth).

Soil: Mix with more sand/loose material (1 part sand:2 parts topsoil:1 part compost).

Planting:

1. Fill deep container with loose mix.
2. Plant shelled peanuts (untreated) or seed nuts 3–5 cm deep, 20–30 cm between plants.
3. Water regularly until flowering and pegging then reduce slightly.

Water & feeding:

- ✓ Regular watering during flowering and pod fill;
- ✓ Avoid waterlogging.

Care & pests:

- ✓ Watch for fungal rots; ensure good drainage and crop rotation.
- ✓ Remove pods promptly at harvest to avoid storage pests.

Harvest:

- ✓ When foliage yellows/dies back (about 3–4 months).
- ✓ Uproot plants, dry pods in shade for a few days before shelling.

Quick tips:

- ✓ Use short-duration varieties for containers.
- ✓ Avoid putting fresh manure in the container.

CORN (MAIZE)

Quick facts: Tall, sun-loving; needs space—use 1–2 stalks per large container.

Best containers: 50L+ bucket, half-drum; sacks only if very deep and wide.

Soil: Rich mix with compost (2:1:1).

Planting:

1. Use a very deep container (30–40 cm minimum).
2. Plant 2–3 seeds per hill at 2–3 cm depth; thin to strongest seedling; keep hills 25–30 cm apart in container.
3. Provide full sun and support if windy.

Water & feeding:

- ✓ Keep evenly moist; side-dress compost/organic fertilizer at knee height and at tasseling.

Care & pests:

- ✓ Watch for stem borers; remove affected plants.
- ✓ Hand-pick caterpillars,
- ✓ Use botanical sprays if needed.

Harvest:

- ✓ Harvest cobs when silks turn brown and kernels are milky (check with finger press).

Quick tips:

- ✓ Plant only 1–2 stalks per large container for good ear development.
- ✓ Ensure pollination by growing 3–4 plants so pollen is available.



COCOYAM (COLOCASIA / TARO)

Quick facts: Tuber crop for leaves and corms; likes shade or partial sun and high organic matter.

Best containers: Deep drums, large sacks or big pots (30–50 cm depth). Soil: Heavy, rich mix with plenty of compost and moisture-retentive material.



Planting:

1. Plant corm pieces or small corms with bud facing up about 8–10 cm deep.
2. Keep soil moist and shaded initially.

Water & feeding:

- ✓ Maintain high moisture (but not stagnant).
- ✓ Mulch heavily with straw/grass.

Care & pests:

- ✓ Watch for root rot—good drainage helps.
- ✓ Protect from snails/caterpillars.

Harvest:

- ✓ Leaves can be harvested by cutting; corms ready after 8–12 months depending on variety.

Quick tips:

- ✓ Use big containers and lots of compost.
- ✓ Grow under shade or partial shade for best leaf quality.

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SOYA BEANS (SOYBEAN)

Quick facts: Nutritious legume; similar care to beans but prefers well-drained soil.

Best containers: 20–50L buckets, sacks, grow bags.

Soil: Basic mix with good drainage.

Planting:

1. Sow seed 2–4 cm deep, spacing 10–20 cm between plants.
2. Thin to strongest plants after establishment.

Water & feeding:

- ✓ Moderate watering; don't overwater.
- ✓ Add compost at planting and at flowering.

Care & pests:

- ✓ Leaf spot and pod borers can occur—remove infected parts, keep leaves dry.

Harvest:

- ✓ Pods turn brown and dry—pick and sundry for seeds.

Quick tips:

- ✓ Use inoculant for better nodulation if available.





UGWU (FLUTED PUMPKIN) — TELFAIRIA OCCIDENTALIS

Quick facts: Leafy vegetable, climbing vine; prefers partial shade and fertile soil; slow to establish but very productive.

Best containers: Very large sacks, 200L drum, large pots with trellis.

Soil: Rich, heavy in organic matter (2:2:1 topsoil: compost: sand).

Planting:

1. Plant young seedlings or setts 5–10 cm deep near a strong trellis.
2. Space 1–2 plants per large container.
3. Grow near shaded wall or tree; intercrop with shade-tolerant vegetables.

Water & feeding:

- ✓ Keep evenly moist and feed with compost every 4–6 weeks.

Care & pests:

- ✓ Support the vine on strong trellis;
- ✓ watch for leaf beetles.
- ✓ Regular leaf harvest encourages new growth.

Harvest:

- ✓ Pick mature leaves as needed; leaves are best when tender.

Quick tips:

- ✓ Grow near shaded wall or tree; intercrop with shade-tolerant vegetables.

WATERLEAF (TALINUM TRIANGULARE)

Quick facts: Fast-growing leafy vegetable, ready in weeks; likes moisture and partial shade.

Best containers: Shallow buckets, crates, sacks, vertical planters.

Soil: Light mix with compost.

Planting:

1. Sow seeds thinly on surface or cover lightly (0.5–1 cm).
2. Keep seedbed moist; germinates quickly.

Water & feeding:

- ✓ Keep moist; harvest leaves by cutting outer leaves so plants regrow.

Care & pests:

- ✓ Very forgiving; watch for slugs/snails.
- ✓ Quick turnover reduces disease buildup.

Harvest:

- ✓ Cut leaves when large enough—continuous harvest for weeks.

Quick tips:

- ✓ Sow every 3–4 weeks for continuous supply.





GARDEN EGG (EGGPLANT/BRINJAL)

Quick facts: Fruit crop; good in containers when given full sun and feeding.

Best containers: 20–30L bucket or 50L drum (one plant per container).

Soil: Rich mix with compost and well-draining soil.

Planting:

1. Start seeds in seed tray or small pots, transplant at 4–6 weeks when 2–3 true leaves show.
2. Plant one (1) seedling per bucket at same depth as nursery.

Water & feeding:

- ✓ Regular watering; feed with compost tea or organic fertilizer every 3–4 weeks.

Care & pests:

- ✓ Watch for flea beetles and fruit borers;
- ✓ Cover young plants with netting and remove eggs by hand.

Harvest:

- ✓ Pick when fruits are glossy and firm.
- ✓ Harvest regularly to encourage more fruit.

Quick tips:

- ✓ Use stakes to support plant if heavy with fruit.

RICE (SMALL/CONTAINERS)

Quick facts: Needs constant water at early stage (paddy) or choose upland dwarf varieties for containers.

Best containers: 50–200 L drums, large basins. For paddy-style, container must be watertight.

Soil: Heavy clay/loam rich in organic matter.

Planting:

1. For paddy method: fill drum with soil mix, flood to a few cm of water, broadcast pre-germinated seeds and maintain 2–4 cm of water for early growth.
2. For upland/container method: sow seeds 1–2 cm deep and keep consistently moist (no flooding required).

Water & feeding:

- ✓ Paddy needs standing water for 3–4 weeks then reduced gradually.
- ✓ Feed with compost or organic fertilizer at tillering and panicle initiation.

Care & pests:

- ✓ Control mosquitoes by covering containers when not in use;
- ✓ watch for birds and keep mesh on top.

Harvest:

- ✓ When stalks turn golden and grains hard—cut and dry before threshing.

Quick tips:

- ✓ Use short duration or dwarf rice varieties for container success.





COWPEA

Quick facts: Drought hardy legume used for leaves and dry grains.

Best containers: Buckets, sacks, grow bags.

Soil: Well-drained mix.

Planting:

1. Sow seeds 2–3 cm deep, 10–20 cm spacing.
2. Thin to one plant per spot.

Water & feeding:

- ✓ Minimal watering once established; add compost for better yields.

Care & pests:

- ✓ Thrips and leaf beetles can damage; practice handpicking and neem sprays.

Harvest:

- ✓ Pods pick from 6–12 weeks depending on variety.

Quick tips:

- ✓ Good intercrop with maize or cassava in larger gardens.

GINGER

Quick facts: Perennial rhizome; aromatic and profitable; needs loose, rich soil and shade.

Best containers: Deep buckets (25 L+), drums, large sacks with depth 30 cm+.

Soil: Rich, loose mix with lots of compost and sand for drainage.

Planting:

1. Use healthy rhizome/setts with visible buds.
2. Plant buds upward 5–10 cm deep, cover with soil.
3. Keep in shady, humid spot.

Water & feeding:

- ✓ Keep moist but not waterlogged; regular mulch and compost top-dressing every 2–3 months.

Care & pests:

- ✓ Watch out for fungal rot—good drainage is key.
- ✓ Remove yellowing leaves.

Harvest:

- ✓ Harvest after 8–10 months for mature ginger;
- ✓ young ginger can be harvested earlier (4–6 months).

Quick tips:

- ✓ Grow under shade net or near taller crops to keep humidity.





CURRY LEAVES (MURRAYA KOENIGII)

Quick facts: Aromatic shrub/tree used in cooking; slow grower but thrives in pots.

Best containers: Large pots (40 L+) or drums.

Soil: Well-drained soil + compost.

Planting:

1. Plant seeds or cuttings in containers with good drainage.
2. Keep in partial sun to full sun; prune to shape.

Water & feeding:

- ✓ Moderate watering; monthly compost or organic fertilizer.
- ✓ Protect from waterlogging.

Care & pests:

- ✓ Few pests—watch for scale and mealybugs.
- ✓ Wipe leaves or use soap spray.

Harvest:

- ✓ Pick leaves as required; young leaves are best.

Quick tips:

- ✓ Slow growing—be patient. Transplant to larger pots as it grows.

MILLET

Quick facts: Small-seed cereal, drought tolerant, needs full sun.

Best containers: Wide, shallow containers or sacks with good sun exposure.

Soil: Light, well-drained mix.

Planting:

1. Sow thinly 0.5–1 cm deep; sprinkle seeds and thin to 10 cm spacing.
2. Keep in full sun.

Water & feeding:

- ✓ Low water needs; water lightly if prolonged dry spell.

Care & pests:

- ✓ Harvest quickly when seed heads are ripe to avoid bird damage.

Harvest:

- ✓ Cut seed heads when golden and dry; thresh and winnow.

Quick tips:

- ✓ Good for drier northern conditions; use bird netting if needed.





CUCUMBER

Quick facts: Vining plant that benefits from trellis; high water needs.

Best containers: 20–30L bucket, large sack with trellis.

Soil: Rich mix with compost and good drainage.

Planting:

1. Sow 2–3 seeds per planting hole 1–2 cm deep. Thin to 1 plant when established.
2. Train vines onto trellis to save space and extend peak production period

Water & feeding:

- ✓ Keep evenly moist; mulch to retain moisture. Feed with compost tea every 2–3 weeks.

Care & pests:

- ✓ Watch for powdery mildew, thrips, etc. ensure good air circulation and remove infected leaves.

Harvest:

- ✓ Pick when fruit is firm and green (varies by variety).
- ✓ Grow the seedless cucumber for better productivity and market value

Quick tips:

- ✓ Use vertical trellis and pick every 2–3 days to encourage more fruiting.

ONION

Quick facts: Bulb crop—can be grown from seed, sets or transplants; needs consistent moisture early then less as bulbs form.

Best containers: Shallow trays, sacks, buckets (bulb depth 10–15 cm).

Soil: Loose, well-drained soil mix with compost.

Planting:

1. Sow thinly and cover lightly or transplant sets 1–2 cm deep.
2. Space 8–10 cm between plants for bulb onions.

Water & feeding:

- ✓ Keep moist until bulbing begins, then water moderately.
- ✓ Add potassium-rich ash or compost for bulb growth.
- ✓ Bulb formation begins from 60–70 days after transplanting

Care & pests:

- ✓ Watch for onion fly and fungal rots—ensure good drainage and remove affected plants.

Harvest:

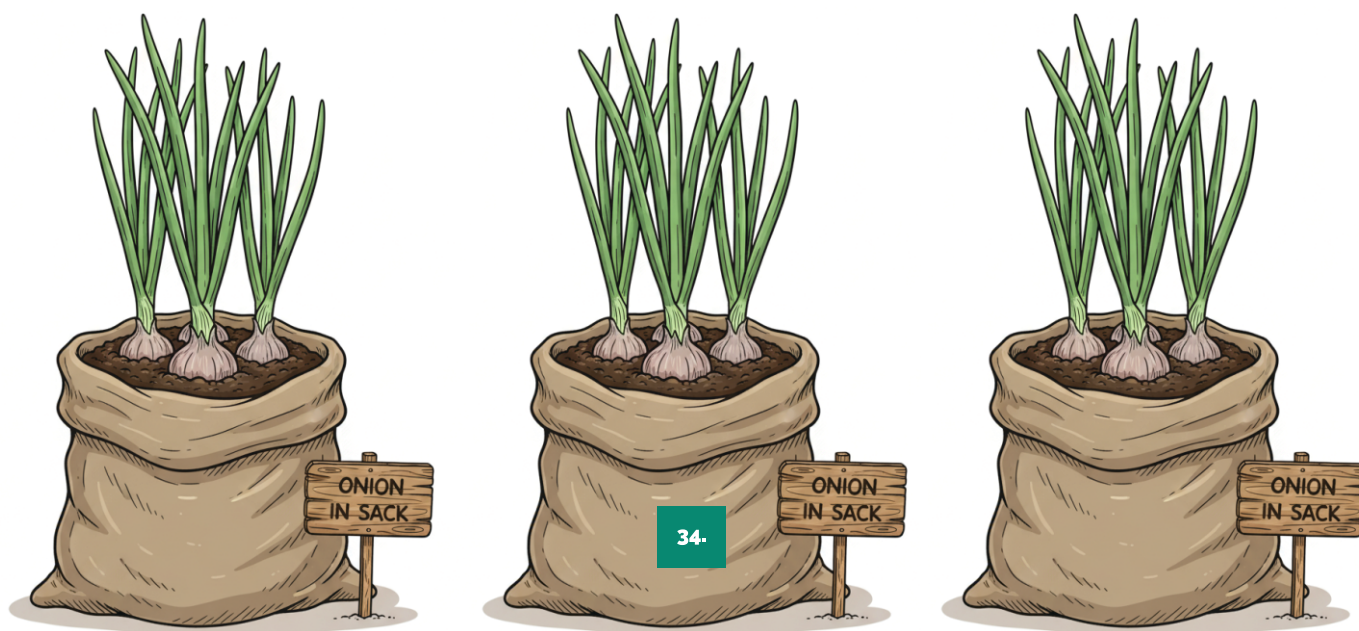
- ✓ When tops yellow and fall over
- ✓ When 70–80% of the tops fall over, it's sign of maturity
- ✓ Gently pull bulbs from the soil, avoid bruising because it can lead to easy decaying.
- ✓ lift bulbs and dry in shade before storage.

Curing: spread bulbs in a well-ventilated area with shade for 7–10 days before bagging

Storage: store in cool, dry and well-ventilated place

Quick tips:

- ✓ Use short-day or intermediate varieties suited to your zone for good bulbs.





WATERMELON

Quick facts: Large vining fruit—space hungry; use large containers and trellis for vertical growing.

Best containers: Very large drums or big grow bags (40–60 L+) with trellis support for fruit.

Soil: Rich, deep mix with lots of compost.

Planting:

1. Plant 2–3 seeds in a large container, 2–3 cm deep; thin to 1 strong plant.
2. Provide trellis or strong support and guide vines.

Water & feeding:

- ✓ Heavy feeder—water deeply and regularly.
- ✓ Side-dress with compost during fruit set.

Care & pests:

- ✓ Watch for powdery mildew and fruit flies.
- ✓ Cover young fruits with netting or cloth to protect.

Harvest:

- ✓ Fruits sound hollow when tapped, rind firm and tendril near fruit dries.

Quick tips:

- ✓ Choose small or bush varieties for containers for easier success.

EGUSI/MELON

Quick facts:

Vining melon producing edible seeds (egusi); likes space and fertile soil.

Best containers: Large containers/drums with trellis.

Soil: Rich mix with compost.

Planting:

1. Sow 2–3 seeds 2–3 cm deep per planting point; thin to one plant.
2. Train vine onto trellis and prune to focus energy on 2–3 fruits.

Water & feeding:

- ✓ Keep moist; heavy feeding with compost during flowering and fruit fill.

Care & pests:

- ✓ Watch for powdery mildew; remove diseased parts and avoid overhead watering.

Harvest:

- ✓ Harvest when fruit is mature and rind hard—open and dry seeds for storage.

Quick tips:

- ✓ Dry seeds well before storage to avoid mold.

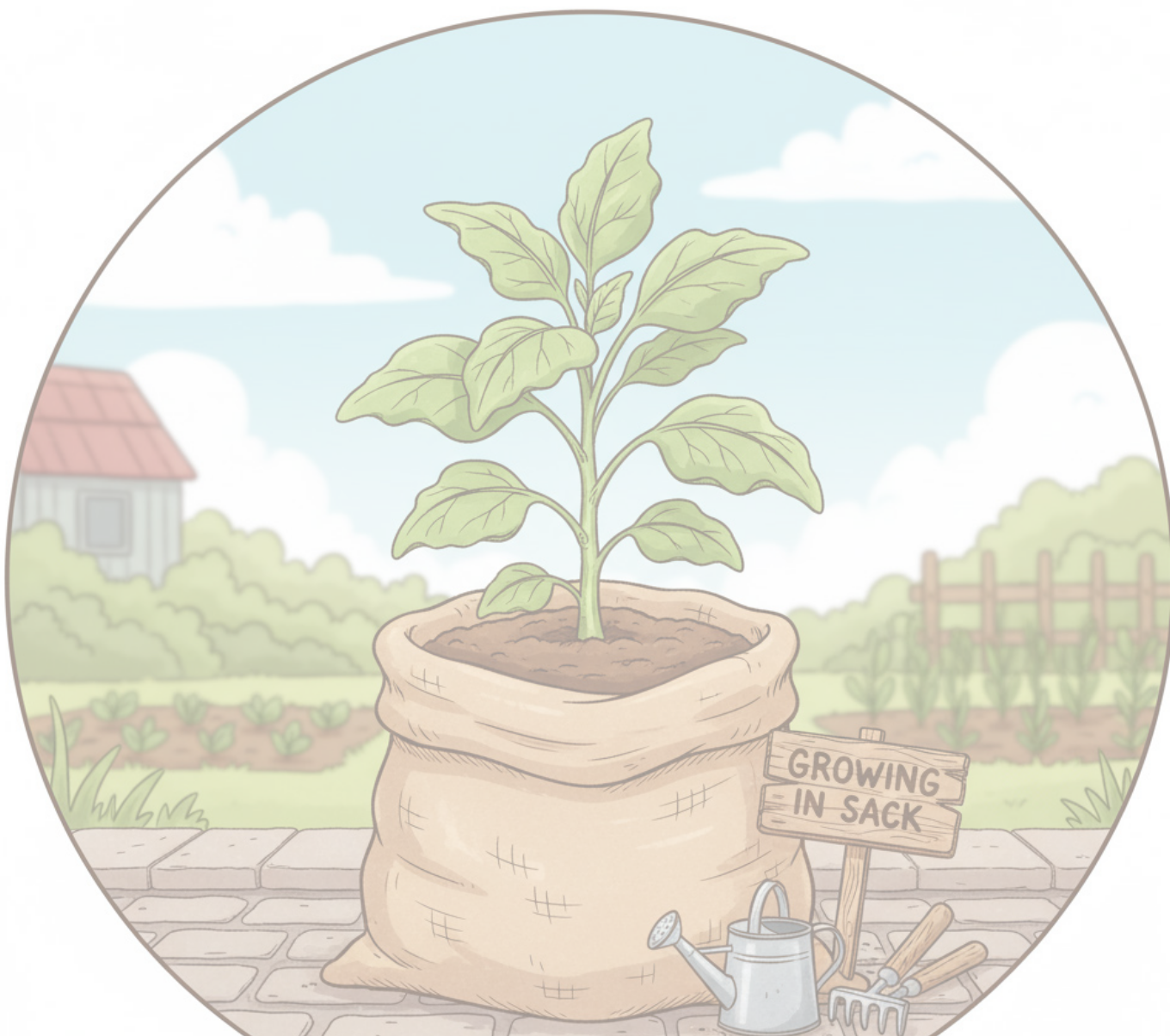


GENERAL ORGANIC PEST CONTROLS

- Make neem leaf/seed water spray for almost all common pests.
- Use wood ash on soil for tuber crops.
- Remove weeds promptly.
- Hand-pick larger insects.
- Practice regular inspection—catch pests early!

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