



Columbia Nursery

🌱 Onion Planting Guide for USDA Zones 3–5 (Long-Day Varieties – Planting Sets)

📋 Overview

Long-day onions are ideal for northern gardens in USDA Zones 3–5, where summer daylight exceeds 14 hours. These onions require longer days to form bulbs properly and offer superior storage qualities.

🌟 Step 1: Choose Long-Day Onion Varieties

Variety Name	Skin Color	Flavor Profile	Storage Potential	Notes
Walla Walla	Yellow	Sweet, mild	Low	Best for fresh eating
Ailsa Craig	Yellow	Mild, large bulbs	Moderate	Scottish heirloom, very large
Patterson	Yellow	Strong, pungent	Excellent	Reliable storage onion
Redwing	Red	Mild, slightly spicy	Good	Stores well for a red onion
Copra	Yellow	Strong, classic taste	Excellent	Top choice for long storage

🌿 Step 2: Planting Onion Sets

- Best Planting Time: 2–4 weeks before your average last frost date, once the soil is workable and around 50°F.
- Zone 3: April 25 – May 10
- Zone 4: April 15 – May 1
- Zone 5: April 5 – April 20
- Choose dormant sets that are 0.5" to 0.75" in diameter for the best bulb development.
- Soil prep: Work in compost or a balanced fertilizer a week before planting.

📅 Planting Calendar Example (Zone 5a)

Task	Approximate Date
Plant onion sets	April 5 – April 20
Harvest green onions	Mid-May to June
Harvest bulb onions	Late July to September



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Planting Instructions for Sets

- Spacing: 4 inches between sets
- Row spacing: 12–18 inches
- Depth: 1–1.5 inches deep, with the tip just below the surface
- Soil: Loose, well-drained, with added compost or aged manure

Care Tips

- Water: Keep soil consistently moist (1 inch/week)
- Fertilizer: Side-dress with nitrogen fertilizer 2–3 times before bulbing
- Weeding: Keep weed-free to avoid bulb competition
- Mulch: Helps retain moisture and suppress weeds

Companion Planting

Companion Plants

Carrots, lettuce

Brassicas (cabbage)

Chamomile, dill

Benefit

Maximize space and shade weeds

Natural pest deterrent

Improves growth and flavor

Avoid planting near: Beans, peas (they inhibit onion growth)

Harvest & Storage

- Harvest: When 75% of tops fall over naturally
- Curing: Leave bulbs on dry soil surface for 3–7 days if weather permits, or cure indoors in a warm, ventilated area
- Storage: After curing, trim tops to 1", roots to ¼", and store in mesh bags in a cool (35–50°F), dry place

Quick Tips for Zones 3–5

- Buy sets labeled as "long-day"
- Avoid oversized sets (>0.75") as they often bolt
- Protect with row covers if unexpected frosts occur
- Raised beds warm faster and drain better in spring

SEED STARTING

Step 2: Seed Starting & Transplanting

- Start seeds indoors: 10–12 weeks before your last frost date
 - Zone 3: Start seeds by Feb 10–Feb 20
 - Zone 4: Start seeds by Feb 20–Mar 1
 - Zone 5: Start seeds by Feb 25–Mar 10
- Harden off seedlings: About 1 week before planting outside



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- Transplant outdoors: 2–4 weeks before your last expected frost
- Use cold frames or row covers if hard frost is expected

Planting Calendar Example (Zone 5a)

Task	Approximate Date
Start seeds indoors	Feb 25 – Mar 10
Harden off seedlings	Late April
Transplant outdoors	May 1 – May 15
Harvest green onions	From mid-June onward
Harvest bulb onions	Late July to September

Planting Instructions

- Spacing: 4–6 inches apart
- Row spacing: 12–18 inches
- Depth:
 - Seeds: ½ inch deep
 - Transplants: 1 inch deep
- Soil: Loose, well-drained, rich in organic matter

Care Tips

- Water: 1 inch/week minimum, more during dry spells
- Fertilize: Use high-nitrogen fertilizer until bulbing begins
- Mulch: Apply to retain moisture and reduce weeds
- Pest Watch: Monitor for onion maggots and thrips

Companion Planting

Companion Plants	Benefit
Carrots, lettuce	Maximize space and shade weeds
Brassicas (cabbage)	Natural pest deterrent
Chamomile, dill	Improves growth and flavor

Avoid planting near: Beans, peas (they inhibit onion growth)

Harvest & Storage

- Harvest: When tops fall over and start to yellow
- Cure: Dry in a warm, airy space for 2–3 weeks
- Storage: Keep in a dark, dry place at 35–50°F; avoid moisture

Quick Tips for Zones 3–5

- Start seeds early and use grow lights
- Choose only long-day or day-neutral varieties



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- Use floating row covers to protect early transplants
- Raised beds help with soil warming and drainage