

# **RESILIENCY & HOMESTEADING 101**

# **Urban Homesteading in Detroit: An Overview**

Urban homesteading is all about maximizing your resources in a limited space to cultivate food, raise small livestock (where permitted), and produce homemade goods for improved self-reliance. Below is a beginner-friendly urban homesteading guide tailored for residents in Detroit, Michigan (Hardiness Zone ~6). In Detroit:

- **Space can be limited**—consider container gardening, raised beds, or community garden plots.
- Soil contamination may be a concern—test soil or use raised beds with clean fill. RESOURCE: https://www.gardeningknowhow.com/garden-how-to/soil-fertilizers/using-plants-for-contami nated-soil.htm
- Local ordinances regulate livestock like chickens, ducks & bees —check city rules and neighborhood restrictions.

# **Gardening for Food**

# What to Plant and When: 2025 Planting Schedule

Detroit's average last spring frost is typically around **late April to early May**. For 2025, estimates might be around **May 5** for the last spring frost, and the first fall frost could be around **October 10**. These dates can shift slightly each year, so keep an eye on local weather reports.

Below is a *general guideline* for sowing/planting times. Adjust slightly depending on microclimate and weather patterns. RESOURCE: <u>https://www.almanac.com/gardening/planting-calendar/zipcode/48224</u>

#### Key Frost Dates (Approx. for 2025):

- Last Spring Frost: ~May 5, 2025
- First Fall Frost: ~October 10, 2025



	Leafy Greens							
Crop	Indoor Start	Direct Sow/Transplant	Harvest Window	Notes				
Lettuce	Late Feb – Mar (optional)	Early Apr (direct sow)						
Spinach	Late Feb – Mar (optional)	Early Apr (direct sow)	Apr – Jun; Re-sow Aug – Sep for fall	Bolts in heat; plant in cool periods.				
Kale	Late Feb – Mar	Early Apr (transplant) or direct May – Jun; Fall sow late Mar harvest into Nov		Very cold-hardy, can survive light frosts.				
Collard Greens	Late Feb – Mar	Early Apr May – Jun; Fall (transplant/direct) harvest too		Similar to kale in hardiness and care.				
Swiss Chard	Late Feb – Mar	May – SepEarly – Mid Apr(continuousLate Feb – Mar(transplant/direct)harvest)		Tolerant of heat; cut outer leaves.				
		Root Crops						
Crop	Indoor Start	Direct Sow/Transplant	Harvest Window	Notes				
Carrots	Not typically started Mid Ap Carrots indoors (direct		Jun – Sep	Needs loose, deep soil; thin seedlings for proper root size.				
Beets	Not typical, but can start indoors ~Mar	Mid Apr – Jun (direct)	Jun – Sep	Harvest both greens and roots; sow in batches for continuous yield.				



Cauliflower	Late Feb – Mar	Apr (transplant)	Jun – Jul; again in fall	Sensitive to heat; may need blanching heads by tying leaves.	
Broccoli	Late Feb – Mar	Apr (transplant)	Jun – Jul; again in fall	Prefers cooler temps; keep soil moist.	
Сгор	Indoor Start	Transplant/Direct Sow	Harvest Window	Notes	
		Brassicas			
Sweet Potatoes	Start slips indoors Mar	Transplant slips Late May (after soil warms)	Sep – Oct	Needs warm soil; long growing season, may need black plastic mulch.	
Potatoes	N/A (plant "seed potatoes")	Late Apr – May (direct)	Jul – Sep	Plant in mounds or containers; hill soil around stems.	
Onions (Sets)	Start seeds indoors Jan – Feb (optional)	Transplant sets Mid Apr – May	Late Aug – Sep	Bulb formation depends on day length; sets are easier for beginners.	
Turnips	Not typically started indoors	Apr – May; Aug (direct)	May – Jun; Sep – Oct	Harvest for roots and greens; likes cool weather.	
Radishes	Not started indoors	Early Apr – Jun; again late Aug – A Not started indoors Sep (direct) G		Fast-growing (harvest in ~4 weeks); good for succession planting.	



Cabbage	Late Feb – Mar	Sep – Nov (frost		Space well; can harvest young or full-size heads. Long season; stake if top-heavy.	
Brussels Sprouts		Apr (transplant) Nightshades	improves flavor)	top-neavy.	
Crop	Indoor Start	Transplant	Harvest Window	Notes	
Tomatoes	Early – Mid Mar	Mid – Late May	Jul – Sep	Needs stakes/cages; remove lower leaves to prevent disease.	
Peppers (Bell, Hot)	Early – Mid Mar	Mid – Late May	Jul – Sep	Likes warmth; feed with balanced fertilizer.	
Eggplant	Early – Mid Mar	Mid – Late May	Jul – Sep	Needs consistent heat; may need staking.	
		Cucurbits			
Crop	Indoor Start	Direct Sow/Transplant	Harvest Window	Notes	
Cucumbers	Apr (optional)	Mid – Late May (direct)	Jul – Sep	Provide trellis for vining types.	
Zucchini (Summer)	Apr (optional)	Mid – Late May (direct)	Jul – Sep	Very productive; harvest frequently.	
Yellow Squash	Apr (optional)	Mid – Late May (direct)	Jul – Sep	Similar to zucchini in care and harvest.	
Winter Squash	Apr (optional)	Mid – Late May (direct)	Sep – Oct	Needs space to vine; store cured squash in a cool, dry area.	



Pumpkins	Apr (optional)	Mid – Late May (direct)	-		
Melons (Watermelon, Cantaloupe)	Mid – Late Apr	Late May – Early Jun (direct)			
		Legumes	1	1	
Сгор	Indoor Start	Direct Sow	Harvest Window	Notes	
Peas	Not typical	Late Mar – Apr (direct)	Jun – Jul	Cool weather crop; use trellis for climbing varieties.	
Green Beans	Green Beans Not typical		Jul – Sep	Bush or pole varieties; harvest frequently.	
Lima Beans	ima Beans Not typical		Jul – Sep	Prefers warmer soil than peas; can be bush or pole.	
Chickpeas	nickpeas Early Apr (optional) (direct)		Aug – Sep	Less common but doable; needs well-draining soil.	
		Herbs			
Сгор	Indoor Start	Transplant/Direct Sow	Harvest Window	Notes	
Basil	Mar – Apr	Mid – Late May	Jun – Sep	Pinch off flower buds to promote leaf growth; loves warmth.	
Cilantro	Apr (optional)	Mid – Late May (direct)	Jun – Sep	Bolts in heat; succession plant every few weeks.	



				Slow to corminate:	
		Mid – Late May		Slow to germinate; soak seeds	
Parsley	Feb – Mar	(transplant)	Jul – Sep	overnight.	
				Perennial in many	
			Orașina	zones; keep	
Oregano	Mar – Apr	Mid – Late May (transplant)	Ongoing summer-fall	contained if it spreads.	
<b>T</b> I		Mid – Late May	Ongoing	Perennial; prefers	
Thyme	Mar – Apr	(transplant)	summer-fall	well-draining soil.	
				Perennial in warm	
				climates; often grown	
Posomany	Feb – Mar	Mid – Late May (transplant)	Ongoing summer-fall	in pots to overwinter indoors.	
Rosemary			Summer-tail		
		Mid – Late May	Ongoing	Woody perennial; do	
Sage	Mar – Apr	(transplant)	summer-fall	not overwater.	
				Highly invasive—keep in a	
		Mid – Late May	Ongoing	pot or container to	
Mint	Mar – Apr	(transplant)	summer-fall	prevent spreading.	
		Other Common Cro	ops		
Сгор	Indoor Start	Direct Sow/Transplant	Harvest Window	Notes	
				Notes	
		Lato May Early		Plant in blocks (not	
Corn	Not typical	Late May – Early Jun (direct)	Jul – Sep	Plant in blocks (not rows) for pollination.	
			· ·		
				Loves heat; harvest	
		Late May – Early		pods while young to	
Okra	Apr	Jun (direct)	Jul – Sep	avoid toughness.	



			Mid – Late May		Needs lots of water; slow-growing but
С	elery	Feb – Mar	(transplant)	Jul – Sep	very rewarding.

**Tip:** For second (fall) plantings of cool-weather crops (like kale, spinach, lettuce), sow again in **late July – early August** for a fall harvest

# Companion Planting: What Grows Well Together (and What Doesn't)

Companion planting is about **pairing crops that mutually benefit** each other through pest control, nutrient usage, or growth habits. Below are some common guidelines:

### **Good Companions**

- **Tomatoes + Basil**: Basil may help repel flies/mosquitoes; enhances tomato flavor.
- **Cucumbers** + **Dill**: Dill attracts beneficial insects that help control pests on cucumbers.
- **Carrots** + **Onions**: Onions can deter carrot flies; carrots loosen the soil for onions.
- **Beans** + **Corn** + **Squash** ("Three Sisters"): Beans fix nitrogen, corn provides a natural trellis, squash shades the soil.
- Lettuce + Radishes: Radishes mature quickly and won't crowd slower-growing lettuce.

### **Poor Companions**

- Onions with Beans/Peas: Onions can stunt legume growth.
- **Tomatoes** with **Potatoes**: Can share similar pests/diseases, increasing risk of blight.
- Cucumbers with Sage: Sage's strong oils may inhibit cucumber growth.
- Fennel almost never does well with other plants—it tends to inhibit growth around it.

### **Special Note on Mint**

- Mint spreads aggressively via runners and can overtake a garden bed.
- Best Practice: Grow mint in a pot or container to keep it from spreading.

# **Best Practices for Planting & Growing Your Own Food**



#### 1. Soil Preparation & Testing

- **Soil Test**: Especially important in urban settings like Detroit. Test for contaminants (lead, heavy metals) and nutrient levels.
- **Amendments**: Add compost or well-rotted manure to enrich soil. For raised beds, purchase high-quality garden soil if native soil is questionable.
- **Drainage**: Ensure containers/raised beds have proper drainage to prevent waterlogging.
- RESOURCE: <u>https://www.detroitagriculture.net/grp</u>

#### 2. Seed Starting

- **Timing**: Start seeds indoors 6-8 weeks before the last frost for many spring crops.
- Lighting: Use a fluorescent or LED grow light if you don't have a bright window.
  South facing window are best in the northern hemisphere. Combine with heat mat for even better germination, also humidity dome, watch for mold/algae.
- **Hardening Off**: Before transplanting, gradually expose seedlings to the outdoors over a week.

#### 3. Transplanting & Direct Sowing

- **Soil Warmth**: Don't rush warm-season crops (tomatoes, peppers, squash) outdoors until nights are reliably above 50°F.
- **Spacing**: Follow recommended spacing to ensure good airflow and reduce disease.
- **Watering**: Water new transplants thoroughly and regularly during the establishment period.

#### 4. Water & Mulch

- **Consistent Water**: Aim for about 1 inch of water per week, adjusting for rainfall. Container gardens may need more frequent watering.
- **Mulch**: Apply straw, wood chips, or grass clippings around plants to retain moisture, suppress weeds, and moderate soil temperature.

### 5. Fertilizing

- **Balanced Approach**: Use compost or an organic, balanced fertilizer (e.g., 5-5-5). Overfertilizing can cause leafy growth but lower yields.
- **Timing**: Feed plants at planting time and again midseason as needed.

### 6. Weeding & Pest Management

- **Regular Weeding**: Prevents competition for nutrients and water.
- **Early Intervention**: Monitor plants for signs of pests or disease and act quickly.
- Netting: Use insect netting over rows/plants.

#### 7. Harvesting

 Frequent Harvest: Many crops (zucchini, beans) produce more the more you pick. Some crops become sweeter and more flavorful after a light frost, like greens. Also, try harvesting in the morning when most of the plant's sugars are stored in the fruits/vegetables.



• **Storing**: Handle produce gently to avoid bruising, and store according to each crop's preferences (cool/dry vs. cool/humid, etc.).

#### 8. Season Extension

• **Row Covers & Cold Frames**: Help protect from early/late frosts and allow you to extend the growing season into fall or start earlier in spring.

# Managing Invasive Herbs (Like Mint)

- **Container Gardening**: Plant mint (and other spreading herbs like oregano if it's an aggressive variety) in **pots** instead of directly in the ground. This helps contain their root systems.
- **Bottom Barrier**: If you must plant mint in a bed, use a **bottomless plastic pot** or root barrier to confine its runners.
- **Frequent Pruning**: Pinch leaves for kitchen use and prune regularly to prevent overgrowth.

# **Natural Homemade Pest Control Options**

Rather than reaching for chemical pesticides, try these eco-friendly methods first:

#### 1. Soapy Water Spray

- **Recipe**: Mix 1 teaspoon of mild liquid soap (like castile soap) in 1 quart of water.
- **Use**: Spray on leaves (both sides) to combat aphids, mites, whiteflies.
- **Tip**: Test on a small leaf first—some plants are sensitive.

#### 2. Neem Oil Spray

- Recipe: Follow instructions on neem oil bottle (often ~2 tablespoons of neem oil + 1 gallon water + a few drops of soap).
- **Use**: Apply to leaves to disrupt insects' lifecycle (particularly effective against chewing or sucking insects).
- **Tip**: Use in early morning or evening to avoid harming beneficial insects (like bees) that visit in midday.

#### 3. Garlic-Pepper Spray

- **Recipe**: Blend 2-3 garlic cloves + 1-2 hot peppers with 1 quart of water, strain, then dilute 1:1 with water.
- **Use**: Deters many soft-bodied insects, and can help repel rabbits/deer if sprayed around the perimeter.
- **Tip**: Wear gloves; capsaicin can irritate skin/eyes.

#### 4. Diatomaceous Earth (Food Grade)

• **Use**: Sprinkle a thin layer around plant bases to deter slugs, snails, and some crawling insects.



Mechanism: The fine powder damages insect exoskeletons, causing dehydration.

#### 5. Companion Planting & Trap Crops

- Marigolds: Plant near tomatoes or brassicas to deter certain pests like nematodes.
- **Nasturtiums**: Often attract aphids away from other crops (acting as a "trap crop").
- **Herbs for Repelling**: Basil, mint, and rosemary can repel certain pests through their strong scents.

#### 6. Encourage Beneficial Insects

- Ladybugs, lacewings, and parasitic wasps, praying mantis feed on common garden pests.
- Provide a bee, bat and/or bird house.
- Grow flowering herbs (dill, fennel, yarrow) to provide pollen/nectar and invite these natural predators.

# **Considering Chickens and Ducks in an Urban Setting**

Before you jump into raising poultry within city limits, here are key points to keep in mind:

#### 1. Check Local Ordinances

- Detroit often allows a limited number of chickens (hens only) but have restrictions on roosters. RESOURCE: <u>SEE OVERVIEW HERE.</u>
- Ducks might have different rules—verify with local guidelines.
- Some neighborhoods or HOAs have additional restrictions.

#### 2. Space & Housing

- Each chicken needs about 2-3 square feet of coop space (plus run space).
- Ducks need slightly more space and also a water source for bathing (a small kiddie pool can suffice).
- Coops or pens must be predator-proof (raccoons, neighborhood dogs, etc.).

#### 3. Feeding & Care

- Provide a balanced feed (commercial layer feed for chickens/ducks), plus kitchen scraps or garden weeds in moderation.
- Ensure fresh, clean water—ducks need enough water to submerge their heads to keep nostrils clean.
- Weekly coop maintenance is essential for cleanliness and neighbor-friendly conditions.



#### 4. Noise & Smell

- Hens are relatively quiet, but roosters and some duck breeds can be noisy.
- Proper cleaning and composting manure keeps odors under control.

#### 5. Egg Production

- Healthy hens can lay about 4-6 eggs/week depending on breed.
- Ducks may lay similarly, but some breeds can be more prolific (like Khaki Campbells).

# **Easy DIY Food Tutorials**

### Making Simple Bread at Home

#### Ingredients (makes 1 loaf):

- 3 cups all-purpose or bread flour
- 1 tsp salt
- 1 tsp instant yeast
- 1<sup>1</sup>/<sub>2</sub> cups warm water

#### Instructions:

- 1. **Mix Dry Ingredients:** In a large bowl, stir together flour, salt, and yeast.
- 2. **Add Water:** Slowly pour warm water into the dry mixture. Stir until a shaggy dough forms.
- 3. **Rest (No-Knead Method):** Cover the bowl with plastic wrap or a damp towel. Let it rest at room temperature for 8-12 hours (overnight is great).
- 4. **Shape Dough:** After resting, the dough should be bubbly and sticky. Turn it out on a well-floured surface, gently fold it a few times, and form it into a round loaf.
- 5. **Second Rise:** Place the dough on parchment paper or a floured towel. Cover again and let rise for about 1-2 hours.
- 6. **Preheat Oven & Dutch Oven:** Preheat your oven to 450°F. If using a Dutch oven (or heavy pot with lid), place it in the oven to heat up for at least 30 minutes.
- 7. **Bake:** Carefully place the dough into the hot Dutch oven (parchment paper helps). Cover with lid, bake for 30 minutes. Remove lid, bake another 10-15 minutes or until crust is golden.
- 8. Cool & Enjoy: Let bread cool before slicing.

### **Other Simple DIY Foods to Try**



- **Yogurt**: Ferment milk with a starter culture in a warm place (Instant Pot or low oven).
- Sprouts/Microgreens: Grow them in a shallow tray indoors—ready in a week or two.
- Herb Infusions: Make herb oils/vinegars with fresh garden herbs.

# Month-by-Month Homesteading Guide

Below is an outline of typical activities, storage tips, and considerations each month. Adjust to your schedule, weather, and personal preferences. RESOURCE: <u>Guide for Zone 6 (our planting zone)</u>

### January

- Garden Planning: Sketch your garden layout, decide which seeds/crops.
- **Supply Check**: Order or purchase seeds early (they can sell out).
- **Indoor Prep**: Start microgreens for fresh greens. Organize seed-starting supplies (lights, trays, soil).

### February

- Soil Testing: If using in-ground beds, test soil for nutrients/heavy metals.
- Start Cool-Season Seedlings Indoors: Onions, some herbs, cabbage, etc.
- Chickens & Ducks: Research local ordinances, budget for coop materials.
- **Tool Maintenance**: Sharpen pruners, repair raised beds if needed.

### March

- Seed Starting: Tomatoes, peppers, brassicas (broccoli, cauliflower).
- Direct Sowing (late March): Spinach, peas, radishes if weather permits.
- Brooder Set Up (if raising chicks/ducklings): Prepare a warm indoor area.
- Compost: Turn compost pile, check moisture.

### April

- **Plant Cool-Weather Crops Outdoors**: Lettuce, kale, peas can go outside once the soil warms.
- Hardening Off: Gradually expose indoor seedlings to outdoor conditions.
- **Final Coop Plans**: Finish building or securing a chicken/duck coop if planning for summer.
- Tool Organization: Ensure irrigation hoses, watering cans, containers are ready.



### May

- Warm-Season Transplants: Move tomatoes, peppers, eggplants outdoors after last frost (~May 5).
- **Direct Sow**: Beans, cucumbers, squash.
- **Chick Arrival**: If raising chickens, consider acquiring chicks now (local farm stores or hatcheries).
- **Pest Management**: Monitor for early aphids, flea beetles, etc.

### June

- Succession Planting: Sow more lettuce, radishes for continuous harvest.
- Maintenance: Water consistently, weed regularly, stake or cage tomatoes.
- **Check Coops**: For new poultry keepers, ensure safe runs, fresh bedding, adequate ventilation.
- **Harvest**: Early greens, peas, herbs.

### July

- Harvest & Preserve: Lettuce, kale, beans, cucumbers, early tomatoes. Begin freezing or canning surplus.
- Heat Stress: Provide shade and water for poultry, watch for heat stress in plants.
- Second Planting: Plant fall crops (broccoli, kale, carrots).
- Stock Up: On canning supplies, mason jars, lids.

### August

- **Peak Harvest**: Tomatoes, peppers, squash. Can, freeze, or dehydrate surplus.
- Fall Crops: Continue sowing spinach, kale, lettuce for autumn harvest.
- Save Seeds: From open-pollinated varieties (tomatoes, beans, herbs).
- **Composting**: Add garden debris but maintain healthy carbon-nitrogen ratios.

### September

- Harvest & Store: Potatoes, onions, winter squash. Cure for storage.
- Prepare Poultry for Cooler Weather: Winterize coops (draft-free but ventilated).
- Season Extension: Use row covers or cold frames for late crops.
- Garden Cleanup: Remove spent plants to reduce pest overwintering.

### October



- Final Harvest: Carrots, beets, remaining tomatoes.
- **Mulching**: Protect perennial herbs and overwintering root crops with mulch.
- **Compost**: Chop up leaves and garden waste to build new compost pile.
- **Poultry Check**: Ensure lighting in the coop if you want to maintain egg production through shorter days.

#### November

- Storage: Root vegetables in a cool, dark place. Keep track of stored produce.
- Seed Inventory: Note leftover seeds, plan for next year.
- Winter Projects: Build or repair raised beds, expand composting system.
- Homemade Foods: Focus on indoor cooking projects—bread, preserves, bone broth.

#### December

- Reflect & Plan: Review successes/failures of the past season.
- Indoor Gardening: Grow sprouts, microgreens, or herbs on a sunny windowsill.
- Coop Care: Keep bedding dry, provide warm water, check for frostbite in poultry.
- **Community**: Connect with local homesteading groups or cooperatives for seed swaps and advice.

Below is a list of foods with **long shelf lives** that are useful to keep on hand for emergencies. These items are generally **non-perishable**, **nutrient-dense**, and can be stored at **room temperature** (in a cool, dry place) with **minimal spoilage** over time. Always rotate your stock (using the oldest items first) to keep your emergency supply fresh.

# **Dried Goods**

- Dried Beans (Black, Pinto, Navy, Lentils, Split Peas)
  - **Shelf Life**: 2–3 years (often longer if stored properly in airtight containers).
  - **Notes**: Provide protein and fiber. Need water and cooking time to prepare.
- Rice (White, Jasmine, Basmati)
  - Shelf Life: Up to 25+ years in vacuum-sealed or airtight mylar bags with oxygen absorbers. Brown rice has a shorter shelf life (about 6–12 months) due to higher oil content.
- Pasta (Dry Noodles, Spaghetti, Macaroni)
  - **Shelf Life**: 1–2 years or more if kept sealed and dry.



- Notes: Easy to prepare; provides carbs. Pair with canned sauce or dried seasonings.
- Oats (Rolled or Steel-Cut)
  - **Shelf Life**: 1–2 years (longer in airtight containers).
  - **Notes**: Good source of fiber; can be used for breakfast or in baking.
- Flour (All-Purpose, Whole Wheat)
  - **Shelf Life**: About 1 year for all-purpose, 3–6 months for whole wheat due to higher oil content.
  - **Tip**: Store in airtight containers or freeze for longer shelf life.

# **Canned Goods**

- Canned Vegetables (Corn, Peas, Carrots, Tomatoes, etc.)
  - Shelf Life: 2–5 years (often edible beyond printed "best by" dates if undamaged).
  - **Tip**: Check for dents, rust, or swelling.
- Canned Fruits (Peaches, Pineapple, Applesauce)
  - **Shelf Life**: ~1–2 years or more if stored properly.
  - **Note**: Look for versions packed in juice or light syrup to reduce added sugar.
- Canned Proteins (Tuna, Salmon, Chicken, Spam, Sardines, Beans)
  - Shelf Life: 2–5 years.
  - **Benefit**: Quick protein source; just open and eat.
- Canned Soups & Stews
  - Shelf Life: ~2–5 years.
  - **Tip**: Choose hearty varieties with vegetables and proteins for a balanced meal.

# **Nut Butters & Oils**

- Peanut Butter, Almond Butter, Sunflower Butter
  - **Shelf Life**: 1–2 years unopened (natural varieties can have a shorter shelf life).
  - **Use**: High in protein, fats, and calories—good for energy.
- Coconut Oil
  - Shelf Life: 1–2 years.
  - **Notes**: More stable at room temperature than many other oils.
- Olive Oil
  - **Shelf Life**: 1–2 years if unopened.
  - **Tip**: Store in a cool, dark place to extend quality.



# Shelf-Stable Staples

- Honey
  - **Shelf Life**: Indefinite (if sealed properly).
  - **Note**: May crystallize over time but remains safe to eat. Re-liquify by gently heating.
- Sugar (White, Brown, Powdered)
  - Shelf Life: Indefinite (if kept dry and sealed).
  - **Tip**: Moisture causes clumping; store in airtight containers.
- Salt
  - Shelf Life: Indefinite.
  - **Use**: Essential for flavor and food preservation.
- Dried Milk Powder
  - Shelf Life: Up to 2–5 years if kept in a sealed container.
  - **Tip**: Useful for cooking/baking when fresh milk isn't available.
- Baking Essentials (Yeast, Baking Powder, Baking Soda)
  - Shelf Life:
    - Active Dry Yeast: ~2 years if unopened and stored in a cool, dry place.
    - Baking Powder: ~1 year.
    - Baking Soda: Indefinite for cleaning purposes; about 6 months to 1 year for baking effectiveness.
- Broth or Bouillon Cubes
  - Shelf Life: ~2 years.
  - Benefit: Adds flavor to dishes, soups, and rice.

### **Dehydrated / Freeze-Dried Foods**

- Dehydrated Vegetables & Fruits
  - **Shelf Life**: 1–2 years, often longer if sealed with oxygen absorbers.
  - **Note**: Lightweight and compact; rehydrate when cooking.
- Freeze-Dried Meals
  - **Shelf Life**: Up to 25+ years in sealed pouches (e.g., camping or emergency food).
  - **Tip**: More expensive but extremely convenient for emergencies.
- Jerky (Beef, Turkey, Vegan Alternatives)
  - Shelf Life: 1 year or more if commercially packaged and sealed.



• **Use**: High-protein snack; look for low-sodium versions if possible.

# **Snacks & Energy Foods**

- Granola & Energy Bars
  - Shelf Life: 6–12 months (check individual packaging).
  - **Notes**: Great for quick energy; vary by brand.
- Nuts & Seeds (Almonds, Peanuts, Sunflower Seeds, Pumpkin Seeds)
  - Shelf Life: ~1 year if sealed and stored in a cool, dry place. Can be frozen for longer.
  - **Tip**: High in healthy fats and protein.

### Miscellaneous

- Herbs & Spices
  - **Shelf Life**: 1–3 years for best flavor, but still usable beyond that (they just lose potency).
  - Value: Enhance the taste of stored foods so you don't get "food fatigue."
- Vinegar (White, Apple Cider)
  - **Shelf Life**: Indefinite if sealed; very stable.
  - **Use**: Food preservation (pickling), flavoring, and cleaning.
- Instant Coffee or Tea
  - Shelf Life: 2+ years if sealed and kept dry.
  - **Benefit**: Comfort item and caffeine boost in emergencies.
- Hard Tack or Pilot Bread
  - Shelf Life: 10+ years.
  - Notes: Dense, dry, and nearly imperishable crackers.

### **Storage Tips & Best Practices**

- 1. Cool, Dark, Dry
  - **Temperature**: Aim for consistent temperatures around 50–70°F.
  - **Dark**: Light can degrade nutrients and cause spoilage in oils.
  - **Dry**: Moisture leads to mold, spoilage, and shortened shelf life.



#### 2. Rotate Stock ("First In, First Out")

• Place newer items behind older ones. Use older stock first to keep supplies fresh.

#### 3. Check Packaging

• Watch for rusted cans, damaged packaging, or pest infestations in bags/boxes.

#### 4. Use Airtight Containers

- For dried goods like beans, rice, and flour, transfer to mylar bags,
  - vacuum-sealed bags, or food-grade buckets with oxygen absorbers.

#### 5. Label & Date

• Write purchase dates on packages. Check periodically.

Below are **10 easy-to-follow recipes** with **minimal ingredients** that can help form the backbone of a **self-sustaining**, nutritious diet. Each recipe highlights **common pantry staples** (like beans, grains, or eggs) and produce you might grow in your own garden. They also emphasize **balanced nutrition**—including **proteins**, **healthy carbohydrates**, **and essential vitamins/minerals**.

# **No-Knead Bread**

Why It's Good:

- Uses basic pantry staples (flour, yeast, salt, water).
- Fresh bread can be a cornerstone of a self-reliant kitchen.

#### Ingredients (makes 1 loaf)

- 3 cups all-purpose or bread flour (substitute <sup>1</sup>/<sub>2</sub> cup whole wheat for extra fiber)
- 1 teaspoon instant yeast
- 1 teaspoon salt
- 1<sup>1</sup>/<sub>2</sub> cups lukewarm water

#### Instructions

- 1. In a large bowl, mix flour, yeast, and salt.
- 2. Stir in water until a shaggy dough forms. Cover with plastic wrap or a damp towel.
- 3. Let rest at room temperature for 8–12 hours (overnight).
- 4. Shape dough into a round on a well-floured surface.



- Preheat oven to 450°F. Heat a Dutch oven (or oven-safe pot with lid) inside for ~30 minutes.
- 6. Carefully transfer the dough into the hot pot, cover, and bake 30 minutes. Remove lid and bake an additional 10–15 minutes until crust is golden.

# Hearty Rice & Beans

#### Why It's Good:

- Combines **complete proteins** (when beans and grains are eaten together).
- Uses pantry-friendly staples (dried beans, rice).

#### Ingredients (4 servings)

- 1 cup dried beans (black, pinto, or kidney), soaked overnight OR 2 cans of beans (drained)
- 1 cup rice (white or brown)
- 4 cups water or vegetable broth (plus extra if cooking dried beans)
- Salt, pepper, and any favorite seasoning (e.g., cumin, garlic powder)

#### Instructions

- 1. If using dried beans, simmer soaked beans in water or broth until tender (1–2 hours). If using canned, skip this step.
- 2. Cook rice according to package instructions (usually 1 cup rice to 2 cups liquid).
- 3. Season beans with salt, pepper, and spices. Combine beans and rice.
- 4. Serve with fresh herbs, chopped tomatoes, or sautéed onions if available.

### Vegetable & Egg Frittata

#### Why It's Good:

- Eggs from backyard chickens (if you have them) provide protein and nutrients.
- Excellent way to use assorted vegetables from your garden.

#### Ingredients (4 servings)



- 6–8 eggs
- 1 cup chopped vegetables (e.g., spinach, kale, zucchini, tomatoes, peppers)
- Salt and pepper to taste
- Optional: Grated cheese, fresh herbs

#### Instructions

- 1. Preheat oven to 350°F.
- 2. Lightly sauté vegetables in a skillet with a little oil or butter.
- 3. Whisk eggs in a bowl with salt and pepper. Add optional cheese/herbs if desired.
- 4. Pour eggs over the vegetables in the skillet.
- 5. Cook on the stovetop for a few minutes until edges set, then transfer skillet to the oven for 10–15 minutes, or until the center is just set.
- 6. Slice and serve warm.

# Simple Lentil Soup (Dal-Style)

#### Why It's Good:

- Lentils are high in protein and fiber, cook quickly, and store well.
- Easy to flavor with homegrown herbs or spices.

#### Ingredients (4 servings)

- 1 cup lentils (red or brown)
- 4 cups water or vegetable broth
- 1 onion (or other aromatics like garlic, ginger)
- 1 teaspoon salt (adjust to taste)
- Spices: turmeric, cumin, or curry powder (optional but adds flavor)

#### Instructions

- 1. Rinse lentils thoroughly.
- 2. Sauté diced onion in a pot until translucent. Add spices if using.
- 3. Add lentils and water/broth. Bring to a boil, then reduce heat to simmer.
- 4. Cook for ~20–25 minutes (red lentils cook faster than brown). Add salt toward the end.
- 5. Serve with rice or bread.



# Garden Veggie Stir-Fry

#### Why It's Good:

- Great way to utilize a variety of garden vegetables.
- Flexible: Use any protein available (tofu, chicken, or beans) for added nutrition.

#### Ingredients (4 servings)

- 2 cups mixed vegetables (e.g., carrots, peppers, zucchini, broccoli)
- 1 cup protein (chopped chicken, tofu, or shelled edamame) optional
- 2 tablespoons oil
- 2 cloves garlic (minced) or 1 teaspoon garlic powder
- Salt, pepper, soy sauce to taste
- Cooked rice or noodles to serve

#### Instructions

- 1. Heat oil in a wok or skillet over medium-high heat.
- 2. Add garlic, then vegetables (harder veggies like carrots/broccoli first, softer veggies like zucchini/peppers last).
- 3. Stir-fry until tender-crisp. If using a protein, cook it first or separately and add back in.
- 4. Season with salt, pepper, and soy sauce. Serve over rice or noodles.

### **Oatmeal with Fruit & Seeds**

#### Why It's Good:

- High in fiber, easy to store.
- Combine with dried or fresh fruit from the garden (berries, apples) and seeds (sunflower, pumpkin) for extra nutrients.

#### Ingredients (1 serving)

- <sup>1</sup>/<sub>2</sub> cup rolled oats
- 1 cup water or milk (cow's, nut, or oat milk)
- Pinch of salt
- Toppings: dried/fresh fruit (berries, apples), seeds (sunflower, chia), a drizzle of honey or peanut butter



#### Instructions

- 1. Combine oats, liquid, and salt in a small pot.
- 2. Bring to a gentle boil, then reduce heat and simmer until thick (about 5 minutes for rolled oats).
- 3. Top with fruit, seeds, and a bit of sweetener if desired.

# **Roasted Root Vegetables & Chickpeas**

#### Why It's Good:

- Root veggies (potatoes, carrots, beets) are easier to store long-term.
- Chickpeas add protein.

#### Ingredients (4 servings)

- 2–3 cups mixed root vegetables (e.g., potatoes, carrots, beets), chopped into bite-size pieces
- 1 can chickpeas (drained) or 1 cup cooked chickpeas
- 2 tablespoons oil
- Salt, pepper, herbs (rosemary, thyme)

#### Instructions

- 1. Preheat oven to 400°F.
- 2. Toss chopped vegetables and chickpeas with oil, salt, pepper, and any herbs.
- 3. Spread in a single layer on a baking sheet.
- 4. Roast for 25–35 minutes, stirring halfway, until veggies are tender and slightly browned.
- 5. Serve as a side dish or over grains.

# **Basic Tomato Sauce (for Pasta, Pizza, & More)**

#### Why It's Good:

- Tomatoes are a common garden crop.
- A versatile base for many meals (pasta, pizza, stews).



#### Ingredients (makes ~2 cups sauce)

- 2–3 cups fresh tomatoes (chopped) or 1 large can crushed tomatoes
- 1 onion (optional)
- 2 cloves garlic or 1 tsp garlic powder
- 2 tablespoons oil
- Salt, pepper, dried basil/oregano (to taste)

#### Instructions

- 1. In a pot, sauté onion and garlic in oil until softened.
- 2. Add chopped tomatoes (fresh or canned).
- 3. Simmer gently for 20-30 minutes, stirring occasionally.
- 4. Season with salt, pepper, and dried herbs.
- 5. Use immediately or cool and store in jars (refrigerate or freeze for longer storage).

# Chickpea & Spinach Curry

#### Why It's Good:

- Combines protein from chickpeas with nutrient-rich greens.
- Can be adapted to other greens (kale, collards).

#### Ingredients (4 servings)

- 1 can chickpeas (drained) or 1<sup>1</sup>/<sub>2</sub> cups cooked chickpeas
- 1 cup chopped spinach (fresh or frozen)
- 1 onion (optional)
- 1 can coconut milk (or ~1 cup plain yogurt)
- 1 tablespoon curry powder or preferred spice blend (garam masala, turmeric)
- Salt, pepper

#### Instructions

- 1. Sauté chopped onion until translucent. Stir in curry powder.
- 2. Add chickpeas and coconut milk (or yogurt). Simmer for ~10 minutes.
- 3. Stir in chopped spinach. Cook until wilted (fresh) or warmed (frozen).
- 4. Season with salt, pepper. Serve over rice or with flatbread.



# Simple Vegetable Soup

#### Why It's Good:

- Uses whatever vegetables you have on hand.
- Can stretch ingredients by adding water or broth, beans, or grains.

#### Ingredients (6 servings)

- 4–6 cups mixed vegetables (carrots, celery, potatoes, onions, zucchini, etc.)
- 6–8 cups water or vegetable broth
- 1 can beans (optional for extra protein)
- Salt, pepper, dried herbs (bay leaf, thyme)

#### Instructions

- 1. In a large pot, sauté chopped onion/celery/carrots if available.
- 2. Add remaining vegetables, beans, and broth/water.
- 3. Bring to a boil, then reduce heat and simmer ~20–30 minutes, until veggies are tender.
- 4. Season with salt, pepper, and herbs. Adjust liquid to desired consistency.

### **Nutrition & Sustainability Notes**

- **Protein Sources**: Beans, lentils, chickpeas, eggs (if raising chickens), or tofu (soybeans).
- Carbohydrate Sources: Whole grains (rice, oats), tubers (potatoes), homemade bread.
- Fats & Oils: Olive oil, coconut oil, peanut butter (healthy fats + energy).
- **Minerals & Vitamins**: Fresh or stored vegetables, fruits, and herbs add vitamins and minerals.
- **Storage & Rotation**: Use **dried beans and grains** for long-term storage. Rotate canned foods regularly to maintain freshness.
- **Gardening Tie-In**: Grow herbs (basil, oregano, thyme), greens (spinach, kale), and root vegetables (carrots, potatoes) for year-round nutrition when possible.

Below is a **curated list of 20 nutrient-dense foods**, along with **approximate nutrition facts** per common serving sizes. These foods are known for their **high content of vitamins**,



**minerals, and/or beneficial macronutrients**—making them great staples in a balanced, self-sustaining diet.

**Note**: All values are approximate and can vary based on factors like brand, variety, and preparation. Data below is roughly based on USDA references.

Food	Serving	Calories	Protein	Carbs	Fat	Key Nutrients
1. Kale (Raw)	1 cup, chopped (~67g)	~34 kcal	~2.2 g	~6 g	~0.5 g	Vitamin K, Vitamin A, Vitamin C, Manganese, Folate
2. Spinach (Raw)	1 cup (~30g)	~7 kcal	~0.9 g	~1.1 g	~0.1 g	Vitamin K, Vitamin A, Vitamin C, Folate, Iron
3. Salmon	3 oz (~85g), cooked	~177 kcal	~17 g	0 g	~11 g	Omega-3 Fatty Acids, Vitamin D, Vitamin B12, Selenium
4. Beef Liver	3 oz (~85g), cooked	~153 kcal	~23 g	~4 g	~3.5 g	Vitamin A, Vitamin B12, Iron, Copper, Folate
5. Eggs (Whole)	1 large egg (~50g)	~72 kcal	~6 g	~0.5 g	~5 g	High-Quality Protein, Choline, Vitamin B12, Vitamin D
6. Greek Yogurt	1 cup (~245g), plain, low-fat	~150 kcal	~23 g	~9 g	~4 g	Calcium, Vitamin B12, Probiotics
7. Lentils	½ cup (~99g), cooked	~115 kcal	~9 g	~20 g	~0.4 g	Protein, Iron, Folate, Fiber, Manganese



						Complete
	1 cup					Protein, Fiber,
	(~185g),	0001				Iron,
8. Quinoa	cooked	~222 kcal	~8 g	~39 g	~3.6 g	Magnesium
						Vitamin E,
						Magnesium, Healthy
						Monounsatura
9. Almonds	1 oz (~28g)	~164 kcal	~6 g	~6 g	~14 g	ted Fats
	1 medium					Vitamin A,
10 0	(~130g),					Vitamin C,
10. Sweet Potato	baked, no skin	~105 kcal	~2.3 g	~24.3 g	~0.2 g	Fiber, Potassium
Folato	SKIII		-2.5 g	~24.5 y	10.2 g	
						Antioxidants (Anthocyanins
						), Vitamin C,
11.	1 cup					Vitamin K,
Blueberries	(~148g), raw	~84 kcal	~1 g	~21 g	~0.5 g	Manganese
	1 cup					Vitamin C,
	(~156g),		1 ~	11 -	0.5 -	Vitamin K,
12. Broccoli	cooked	~55 kcal	~4 g	~11 g	~0.5 g	Folate, Fiber
						Healthy Fats,
	<sup>1</sup> ∕₂ medium					Vitamin K, Folate,
13. Avocado	(~100g)	~160 kcal	~2 g	~8.5 g	~15 g	Potassium
						Vitamin C,
	1 cup					Vitamin A,
14. Bell Poppor	(~149g), chonned	~30 kool	~150	~9 0	~0.4 ~	Vitamin B6, Antioxidants
Pepper	chopped	~39 kcal	~1.5 g	~9 g	~0.4 g	Antioxidants
	3.75 oz					Omega-3 Fats, Vitamin
	(~92g) can					D, Calcium,
15. Sardines		~191 kcal	~23 g	0 g	~11 g	Vitamin B12



16. Mushrooms	1 cup (~70g), sliced, raw	~15 kcal	~2.2 g	~2.3 g	~0.2 g	B Vitamins (Riboflavin, Niacin), Selenium, Vitamin D (if UV-exposed)
17. Orange	1 medium (~140g)	~62 kcal	~1.2 g	~15.4 g	~0.2 g	Vitamin C, Fiber, Folate, Potassium
18. Oats	½ cup (~40g), dry	~150 kcal	~5 g	~27 g	~3 g	Beta-Glucan Fiber, Iron, Magnesium, B Vitamins
19. Seaweed (Nori)	~10g, dried	~30 kcal	~5 g	~1 g	~0.1 g	Iodine, Vitamin K, Magnesium, Some Protein
20. Pumpkin Seeds	1 oz (~28g), shelled	~151 kcal	~7 g	~5 g	~13 g	Magnesium, Zinc, Iron, Healthy Fats, Antioxidants

# **Emergency Kits & Go Bags**

Preparing a go bag for a natural disaster requires careful thought, especially if you're concerned about not having a home to return to. Here's a comprehensive checklist of important items, focusing on documents, essentials, and long-term survival:

### Documents

Store all documents in a waterproof, fireproof bag or container:

#### 1. Identification:

- Driver's license or state ID
- Passport
- Birth certificates



• Social Security cards

#### 2. Financial Information:

- Bank account information
- Credit/debit card numbers (or photocopies)
- Cash (small denominations)

#### 3. Insurance Information:

- Homeowner's/renter's insurance
- Health insurance
- Car insurance policies

#### 4. Property Records:

- Deeds or lease agreements
- Vehicle titles/registration

#### 5. Medical Records:

- Vaccination records
- Prescriptions
- Medical conditions and allergies
- 6. Emergency Contacts:
  - Written list of important phone numbers (family, friends, insurance, doctors)

#### 7. Legal Documents:

- Wills, power of attorney, or other legal directives
- Marriage/divorce certificates
- Pet vaccination and ownership records

#### 8. Digital Backup:

- USB drive with scans of all critical documents
- Login credentials for key accounts (secured with a password manager)

### **Personal Essentials**

- 1. Clothing:
  - Weather-appropriate layers
  - Sturdy shoes
  - Socks and undergarments (enough for 3-5 days)

#### 2. Hygiene Items:

- Toothbrush, toothpaste, soap, deodorant
- Feminine hygiene products
- Small towel
- Hand sanitizer
- 3. Basic First Aid Kit:
  - Bandages, gauze, antiseptic wipes



- Pain relievers (ibuprofen/acetaminophen)
- Prescription medications (7-14 day supply)

### Survival Gear

#### 1. Food and Water:

- 3-day supply of non-perishable food (granola bars, canned goods)
- Water (1 gallon per person per day for 3 days)
- Portable water filter or purification tablets

#### 2. Tools and Supplies:

- Multi-tool or knife
- Flashlight (extra batteries or solar-powered)
- Duct tape
- Rope or paracord
- Emergency blanket
- Tool for protection

#### 3. Fire-Making Kit:

- Waterproof matches or lighter
- Firestarter
- 4. Shelter:
  - Compact tent or tarp
  - Sleeping bag or blanket

#### 5. Communication:

- Battery-powered or hand-crank radio
- Fully charged power banks for devices

### Miscellaneous

- 1. Maps:
  - Physical maps of your area and evacuation routes
- 2. Pets:
  - Food, water, and leash/harness
  - Copy of vaccination records
  - Portable pet carrier
- 3. Comfort Items:
  - Photos, small keepsakes
  - Journal and pen



#### 4. Extra Keys:

• For your home and vehicles

### 5. Protective Items:

- Face masks (N95 or similar)
- Gloves

#### 6. Special Needs:

- Items for infants (formula, diapers)
- Adaptive equipment for individuals with disabilities