ADDENDUM B

# Food: Zero to Full Competency

Curious how Tier, Stage, and Phase relate? See the Glossary.

## Why This Addendum Exists

Chapter 3 tells you what to have and do at each tier of a disruption. It does not tell you how to actually get good at food preservation or growing your own food if you're starting from zero. This addendum is a skill-building curriculum for exactly that: a structured path from no relevant knowledge to genuine, tested competency in Food, built from real Utah programs, certifications, and hands-on practice, not just reading lists.

It's organized by skill stage, not by disaster duration, because building competency isn't duration-bound the way disaster response is. You can be at Stage 3 in food preservation and Stage 1 in foraging at the same time; that's normal and expected. Move through each stage at whatever pace your life allows, and treat the self-check at the end of each stage as the actual gate, not the time spent.

Four stages: Foundations (basic safe practice), Applied Practice (hands-on competence), Self-Sufficiency (independent, resilient skill), and Mastery & Teaching (able to teach others and operate at community scale). Each stage covers two sub-skill tracks that run in parallel: food preservation and storage, and food production.

## Stage 1: Foundations (Awareness)

Goal: know the core safety facts well enough to not hurt yourself or your household, and understand the landscape of what's ahead. This stage is readable in a weekend; it's meant to be the floor everyone in the household clears quickly, not a deep skill.

### Core Knowledge

The core food-safety concept at this stage is the "danger zone": bacteria multiply fastest between 40°F and 140°F, which is why the 2-hour rule (4-hour rule above 90°F ambient) for perishable food

exists. The second core concept is basic nutrition math: roughly 2,000 kcal per person per day as a baseline (more for children, nursing mothers, larger adults, or anyone doing physical labor), covered in Chapter 3's Tier 1. At this stage, you don't need to know how to preserve food yet; you need to know how to keep what you already have safe, and roughly how much you'll actually need to store or produce.

## Stage 1 Learning Path

| Resource | Cost / Format | Notes |
|---|---|---|
| National Center for Home Food Preservation (NCHFP) | Free, online, nchfp.uga.edu | University of Georgia's USDA-funded research center; the authoritative, science-based source for every home preservation method (canning, freezing, drying, fermenting, curing). Read the "Guide Part 1: Principles of Home Canning" section first. |
| So Easy to Preserve (UGA Cooperative Extension book) | Free PDF or ~$25 print, 6th edition | The NCHFP's companion book; 388 pages covering canning, pickling, jams, freezing, and drying in one reference. Worth owning in print per the Digital Data & Documents chapter's archival-library guidance. |

## Stage 1 Practice Exercises

- **Read one full NCHFP guide section:** Pick one preservation method you don't currently use (canning, dehydrating, or freezing) and read its full NCHFP guide section, not just a summary.
- **Practice the audit method:** Do a real pantry audit using Chapter 3's calorie-conversion method (not an estimate) and know your household's actual day count against the 14-day target before moving on.

**Self-Check: Ready for Stage 2?**

You should be able to explain, without looking it up, why water-bath and pressure canning aren't interchangeable, and describe the 2-hour/4-hour perishable food rule. If either requires a lookup, stay in Stage 1 a little longer; the applied practice in Stage 2 assumes this is automatic.

# Stage 2: Applied Practice (Competent)

Goal: move from knowing the theory to having actually done it, under real (if low-stakes) conditions. This stage is hands-on by design; reading about canning is not the same skill as having canned. Expect this stage to take a few months, mostly gated by class schedules rather than effort.

## Applied Practice

- **Take a hands-on preservation class:** USU Extension's Home Food Preservation Series (canning and dehydrating, roughly $6/class) is specifically designed as a low-cost, low-commitment entry point. Attend at least two sessions covering different methods. See the Food Preservation skill guide for tested processing times and methods to practice against.
- **Can or dehydrate a real batch:** Complete one full preservation run start to finish, following a tested NCHFP recipe exactly (not an heirloom family recipe with unverified processing times), and record what you'd do differently next time.
- **Build a real FIFO rotation:** Set up and actually use a first-in-first-out rotation system for your stored food for at least one full month, not just as a one-time organizing exercise.
- **Build a bulk long-term supply hands-on:** The Church of Jesus Christ of Latter-day Saints operates Home Storage Centers open to the public (not just members) along the Wasatch Front, selling bulk long-term staples (wheat, rice, beans, oats, powdered milk) at low cost; several locations let you actually operate the canning/sealing equipment yourself to package your own #10 cans. This is genuinely hands-on bulk storage practice, not just an online order. See the Sealing Bulk Food for Long-Term Storage skill guide for how to package and seal what you buy.

## Stage 2 Learning Path

| Resource | Cost / Format | Notes |
|---|---|---|
| USU Extension Home Food Preservation Series | ~$6/class, in-person, Cache County and other counties | extension.usu.edu/preserve-the-harvest. Short, specific classes (canning beef, canning vegetables, dehydrating jerky, etc.); check your county's extension office for local scheduling, since offerings vary by county. |
| USU Extension Food Safety resources | Free, online | extension.usu.edu/foodsafety. Complements the preservation classes with the food-safety reasoning behind each processing time and method. |
| A tested pressure canner or dehydrator | $80–$250 depending on equipment | Buy once, good quality; an under-processed low-acid canned good is a real botulism risk, so this isn't a place to cut corners on equipment reliability. |
| LDS Home Storage Centers | Low-cost bulk goods; open to the public | churchofjesuschrist.org/life/home-storage-centers. Find your nearest Wasatch Front location; some offer self-service canning stations for packaging your own bulk purchase. |

**Self-Check: Ready for Stage 3?**

You should have physically completed at least one full food preservation run, not just read about it, and you should be able to do it again without referring back to instructions for the core steps. If you've only read the material so far, that's still Stage 1 competency regardless of how much you've read.

## Stage 3: Self-Sufficiency (Proficient)

Goal: genuine independence from the supply chain for meaningful stretches of time, the actual skill level Chapter 3's Tier 3 assumes a household has. This stage is a real commitment, typically a full growing season plus a multi-week course sequence, and produces skills that don't degrade quickly once built.

### Self-Sufficiency

- **Complete a real preservation certification:** USU Extension's Master Food Preserver course (hands-on workshops, based in Salt Lake City) goes well beyond the Stage 2 classes into a genuine, in-depth certification covering the full range of preservation science.

- **Complete a real production certification:** USU Extension's Master Gardener Program is 13–14 weeks of college-level lecture and hands-on training (botany, soils, irrigation, pest management, and more), offered at 13 locations across Utah, plus a 40-hour volunteer service requirement to receive the certificate.

- **Learn regional wild foods:** Utah-specific foraging instruction (for example, Edible Wilds LLC's classes and book, or Wild Utah Edibles' guided tours) teaches identification of genuinely local wild edible plants; this is a real skill with real poisoning risk if self-taught from a generic national guide that doesn't account for regional look-alikes. See the Foraging Wild Edibles Basics skill guide for the specific deadly look-alikes worth knowing before any class, not as a substitute for one.

- **Run a real growing season:** Grow, harvest, and preserve at least one meaningful crop from your own property through a complete season; this is the step that actually tests whether the Master Gardener and Master Food Preserver knowledge holds up under real conditions.

- **Build real no-fuel cooking capability:** A genuinely independent food system includes a way to cook that doesn't draw down your fuel or power reserves; the Solar Cooking skill guide covers box, panel, and parabolic designs and the real conditions each one needs.

- **Build real no-power cold storage capability:** Canning and dehydrating aren't the only preservation methods; root cellaring and evaporative cooling extend produce life without processing it at all, and without power. See the Improvised Cold Storage skill guide for real crop-by-crop targets and four buildable methods.

### *Additional Food Production Tracks (Situational)*

The three tracks below are genuinely valuable Stage 3 skills, but unlike gardening and preservation, they're not universal: legal restrictions, property size, dietary preference, and local ordinance all determine whether they're realistic for a given household. Treat them as worth pursuing if they fit your situation, not as a gate everyone needs to clear.

- **Animal protein through hunting and fishing:** Utah's Division of Wildlife Resources (DWR) requires a hunter education course to obtain a hunting license if you were born after December 31, 1965; the course (about $12, roughly 4–6 hours online plus a required field day with a written test and live-fire exercise) covers firearm safety, wildlife management, and survival skills directly relevant to food production self-sufficiency. A fishing license is required at age 12+ (free under 12), and Utah DWR's "Fishing for Beginners" resources are a genuine, low-barrier entry point if hunting isn't the right fit. Build this skill assuming it gets harder to rely on the longer a disruption lasts, not easier: real famines and wartime shortages consistently show wild game and fish near population centers depleted by competing demand within months, so

a household planning on hunting or fishing as a real Stage 3 food source should also have Chapter 8's Tier 4 community-governance skills, the same ones that cover shared resource disputes generally, not just security. See the Hunting, Trapping & Field Dressing Basics skill guide for the field-dressing side of this.

- **Small livestock: backyard poultry:** Chapter 3's Tier 3 explicitly names small livestock as part of self-sufficient food production; backyard chickens are the most accessible version for most Wasatch Front properties. Before acquiring birds, check your specific city or county ordinance: flock size limits, rooster restrictions, and whether poultry is permitted at all vary significantly by jurisdiction (Utah Code § 10-8-59 leaves this to local land-use codes, so there's no statewide default). USU Extension maintains a dedicated poultry specialist and fact sheets specifically for science-based backyard flock guidance. See the Backyard Poultry & Small Livestock Basics skill guide for real coop space and predator-proofing specs.
- **Seed saving and seed libraries:** Buying starts or seed packets every season is a real dependency on the supply chain; saving your own seed from a successful harvest closes that gap. Utah has a genuine, free seed library network (Salt Lake City Public Library, Provo Library, University of Utah, and others), and USU Extension runs seed-saving classes and publishes a seed-saving guide. Note that open-pollinated varieties save true to type; hybrid varieties generally don't, so which seed you save matters as much as whether you save it. The What to Grow skill guide covers the actual technique: which crops are easy versus hard to save true seed from, real isolation distances, and how to store what you save so it's still viable years later.

## Stage 3 Learning Path

| Resource | Cost / Format | Notes |
|---|---|---|
| USU Master Food Preserver Course | Fees vary by cohort; contact USU Extension | In-depth, hands-on workshops in Salt Lake City. Contact USU Extension (e.g., Melanie Jewkes, 385-468-4838) to get on the list for the next cohort, since it doesn't run continuously. |
| USU Master Gardener Program | Fees vary by county (each county sets its own price) | extension.usu.edu/mastergardener. 13–14 weeks of training plus 40 hours of required volunteer service; offered in 13 Utah locations. Find your county's program through the USU Extension site. |
| Edible Wilds LLC / “Practical Guide to Utah's Wild Edible Plants” | Course fees vary; book ~$20 | Steven C. Golieb's Utah-specific foraging instruction and reference book; a genuinely regional resource rather than a generic national foraging guide. |
| Wild Utah Edibles guided tours | Course fees vary | wildutahedibles.com. Utah County-area guided foraging tours pairing identification with hands-on tasting and habitat context. |
| Utah DWR Hunter Education | ~$12 resident, online + field day | wildlife.utah.gov/huntereducation. Required for anyone born after 12/31/1965 to obtain a Utah hunting license; the online course covers firearm safety and wildlife ID. |
| Utah DWR Fishing for Beginners / licensing | License required at 12+; free under 12 | wildlife.utah.gov/fishing/beginners. A lower-barrier entry point into animal protein self-sufficiency than hunting. |
| USU Extension Poultry Resources | Free fact sheets, online | extension.usu.edu/poultry. Science-based backyard flock guidance; check your city/county ordinance before acquiring birds, since permitted flock sizes vary by jurisdiction. |
| Utah seed libraries (SLC Public Library, Provo Library, University of Utah, and others) | Free | Search “[your city] seed library”; most Wasatch Front library systems now run one. Pair with USU Extension's seed-saving classes and guide. |

**Northern Utah Note**

Both the Master Gardener and Master Food Preserver programs are run county-by-county, so availability, price, and schedule differ across the Wasatch Front. Start with your own county's USU Extension office; if your county doesn't currently offer a cohort, most programs allow enrolling through a neighboring county.

**Self-Check: Ready for Stage 4?**

You should hold (or be actively enrolled in) at least one real certification (Master Food Preserver or Master Gardener), have completed a full growing season with real output, and be comfortable making an on-the-spot call about food safety without consulting a reference. This is the stage where you become the person your household or neighbors would actually ask. If any of the situational tracks above (hunting/fishing, backyard poultry, seed saving) fit your household, completing them is a genuine bonus toward Stage 3 readiness, not a requirement for it.

## Stage 4: Mastery & Teaching (Expert)

Goal: the ability to teach others reliably, operate at a scale beyond your own household, and hold professional-level credentials where they exist. This is the stage Chapter 3's Tier 4 (community-scale, shared resources) actually depends on: someone has to be capable enough to lead it. This stage is ongoing rather than something you finish.

### Teaching & Certification

- **Volunteer as an instructor:** Both the Master Gardener and Master Food Preserver programs are built around graduates teaching the next cohort or the public; this volunteer-teaching requirement is itself the mechanism that turns personal competency into community capability.
- **Pursue a professional food safety credential:** USU Extension's Food Safety Managers Certificate Program is a real, professional-level credential (the kind required of commercial food service managers) and is a legitimate path if you want to run community-scale food operations (a shared kitchen, a food pantry, a community canning program) credibly and safely.

### Community-Scale Practice

- **Design for a group, not a household:** Take what you've built at Stage 3 (a garden, a preservation routine) and scope out what it would take to run the same thing at 5x or 10x the household scale; the constraints are different (labor coordination, equipment sharing, storage logistics), not just "more of the same."
- **Build the roster and cache described in Chapter 3's Tier 4:** Chapter 3 calls for a community seed bank, shared production tools, and a skills roster; Stage 4 is where you're the person capable of stocking, maintaining, or teaching from that roster rather than just listing it as a goal.
- **Mentor, don't just instruct:** A one-time class teaches a technique; ongoing mentorship (checking in on someone's first canning batch, walking a neighbor's garden with them mid-season) is what actually transfers competency reliably. Build at least one real mentoring relationship, not just a teaching credential.

## Stage 4 Learning Path

| Resource | Cost / Format | Notes |
|---|---|---|
| Master Gardener / Master Food Preserver volunteer-instructor track | Time commitment (40+ hrs), not a course fee | The built-in progression path within programs you've already completed in Stage 3; ask your county coordinator how to move from graduate to instructor. |
| USU Food Safety Managers Certificate Program | Fee-based, exam required | extension.usu.edu/foodsafety/certificate-program. A genuine professional credential; check current FAQ and requirements directly, since certificate programs are periodically updated. |

**Self-Check: Have You Actually Arrived?**

The real test of Stage 4 isn't a credential; it's whether someone else has successfully learned a skill from you and can now do it independently. If you've taught at least one person to safely can food and they've since done it again without you, that's the actual signal, more than any certificate on its own.

## A Suggested Learning Sequence

The two tracks (preservation, production) don't have to move at the same pace, and most households will naturally be further along in one than the other. As a rough guide, not a requirement:

- **Weeks 1–2:** Stage 1 across both tracks: read the core references, do the pantry audit, pick a preservation method to focus on first.
- **Months 1–4:** Stage 2: take a first hands-on class, run one full preservation cycle.
- **One growing season plus a course cycle (roughly 6–14 months):** Stage 3: enroll in Master Food Preserver and/or Master Gardener, run a full season of production and preservation.
- **Ongoing:** Stage 4: move into a volunteer-instructor role, consider a professional credential if your household's Tier 4 plan calls for it, and start mentoring specific people rather than just taking more classes.

## At a Glance: Food Deep Dive

A single-page reference for planning purposes. This does not replace the detailed guidance above; use it to see how the four stages scale, and cross-reference against Chapter 3's tiers, which describe what a household needs to have and do rather than how skilled it needs to be.

| Stage | Focus | Key Milestone | Primary Resource |
|---|---|---|---|
| Stage 1: Foundations | Core safety knowledge, no hands-on requirement yet | Can explain the food danger zone from memory | NCHFP guide |
| Stage 2: Applied Practice | Hands-on, low-stakes repetition | Completed one full preservation run | USU Home Food Preservation Series |
| Stage 3: Self-Sufficiency | Independent, certified skill over a full season | Holds or is enrolled in a real certification; completed a full growing season | USU Master Gardener / Master Food Preserver |
| Stage 4: Mastery & Teaching | Teaching others, community/professional scale | Has taught someone who has since succeeded independently | Volunteer-instructor tracks, professional certificates |