SKETCHY SURVIVAL 101 · FREE BUILD SHEET

THE SAND VAULT

$10 · 6 MONTHS
zero watts, no cord, reusable sand

A 10 dollar box of damp sand keeps carrots crisp and sweet for **6 months**, while a thousand dollar fridge turns the same carrot rubbery in **3 weeks**. The fridge is a drying machine. Damp sand is a counterfeit winter. Here is the whole build on one page.

1 WHAT IT IS

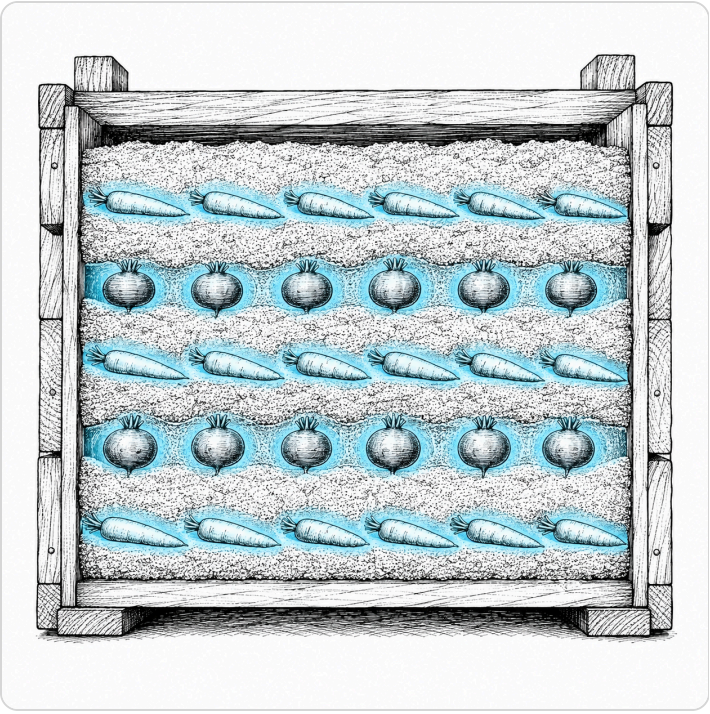
A carrot is about **88% water**, and it only has to lose about **8%** of that to go limp. Your fridge air runs near **40% humidity**, drier than desert air, so it pulls water out of every root. Pack roots in damp sand and the air touching them sits at roughly **95% humidity**, so the water inside has nowhere to go. No motor, no coolant, no cord.

2 SHOPPING LIST

Wooden crate or plastic tote (not airtight)	**$5**
One 50 pound bag plain play sand	**$6**
Water, a cup at a time (from the tap)	**$0**
Total, buries 20 to 30 pounds of roots	**about $10**

The sand is not a consumable. Dry it out in spring and it works again next fall, so 10 dollars is closer to a one time buy than a yearly one.

The fist test: squeeze hard. It should clump and hold shape without dripping a single drop.



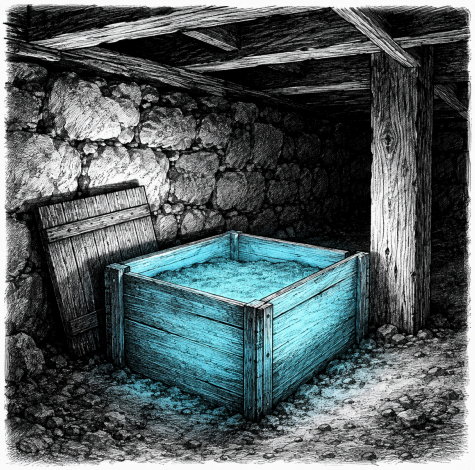
Layer sand, roots, sand. The one rule that matters: no two roots touching.

3 BUILD IT, ABOUT 10 DOLLARS, ONE AFTERNOON

- [ ] Pick a wooden crate or plastic tote. **Do not make it airtight**, leave a loose lid or a few small gaps so the roots can breathe.
- [ ] Dampen the sand with the **fist test**. Add water a cup at a time until a squeezed handful just barely holds its shape and drips nothing.
- [ ] Sort at the door. **Only firm, unblemished roots go in.** Eat the soft, nicked, or bruised ones this week.
- [ ] **Do not wash the roots.** Brush off loose dirt and stop. Washing wets the skin and opens a door for mold.
- [ ] Cut the leafy tops down to about **a half inch**. Greens left on wick water out of the root and drag it down.
- [ ] Pour **2 inches** of sand in the bottom. Lay roots flat with **no two touching**.
- [ ] Cover with **1 inch** of sand, add the next layer, and keep stacking. Cap with a final **2 inches** on top.
- [ ] Park it somewhere **cool and dark, 32 to 50 degrees F**. An unheated basement, crawl space, garage that does not freeze, or a cold closet on a north wall.
- [ ] **Check once a month.** Pull anything going soft. Ten minutes, twelve times a year.
- [ ] To eat, just reach in, feel around, pull what you need, and smooth the sand back over the rest.

4 WHY IT WORKS, IN PLAIN NUMBERS

- **Water loss:** a root loses about 8% of its moisture and goes limp. Damp sand holds the air at ~95% humidity, so it cannot.
- **The fridge fights you:** its cold coil condenses moisture out of the air and drains it away. Inside runs near 40% humidity, closer to desert than soil.
- **The gas attack:** apples, bananas, tomatoes, avocados, and pears pump out ethylene, a ripening gas. In a shared drawer it makes carrots turn bitter and greens yellow. In sand, every root sits alone and no gas builds up.
- **Cold still helps:** chill produce by 18 degrees F and it breathes at about half the rate, so colder storage lasts longer.
- **The proof:** commercial rooms hold carrots at 32 degrees F and near 100% humidity for 6 months and longer. The sand vault copies that.



A counterfeit winter: cool, damp, dark. The exact place a root was built to survive for months.

5 WHAT GOES IN, WHAT STAYS OUT

BELONGS IN THE SAND	STAYS OUT, IT WILL ROT FAST
Carrots and **parsnips**, 4 to 6 months	**Leafy greens** and **lettuce** (fridge instead)
Beets and **turnips**, 3 to 5 months	**Tomatoes** (the counter, away from all)
Radishes, buried in the damp sand	**Cucumbers**, **berries**, anything soft and wet
Potatoes, keep the sand drier and total dark	Anything that is not a firm root vegetable

Sort first. Firm roots go in the box; soft and leafy produce goes to the fridge or counter.

A root is the plant's savings account, buried on purpose to survive winter. Cold, damp, dark soil is not a threat to a carrot. It is the exact place evolution built it to last for months. You are not storing the carrot. You are convincing it that it was never harvested.

! GET THESE WRONG AND THE BOX BECOMES A ROT FARM

NEVER WET, ONLY DAMP. If a squeezed handful drips, the sand is wet enough to suffocate roots and breed rot. If it falls apart like dust, it is a desert. Damp means it just barely holds its shape.

ONE BAD ROOT RUINS THE BATCH. A single soft, nicked, or bruised vegetable buried in the middle rots and spreads by contact and gas. Be ruthless at the door.

GREEN POTATO WARNING. Light turns a stored potato skin green, and that green flags a bitter toxin forming under the surface. Keep potatoes in total darkness. If one greens, cut deep below the color or throw it out.

DO NOT SEAL IT AIRTIGHT. The roots are still breathing. Airtight suffocates them. A loose lid or small gaps is the goal.

WATCH THE FULL BUILD

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$10
BEATS A $1,000 FRIDGE

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