



This bag is whole hard red winter wheat, and it does three unrelated jobs. Grow it in a tray and juice it. Run it through a mill and bake with it. Or simmer the berries whole and eat them like farro. All three are on this sheet.

ONE BAG, THREE COMPLETELY DIFFERENT THINGS

Grow it for juice

Sow it in a tray, cut it at 7 inches on day 8–10, and run it through a juicer. About two cups of seed fills a standard tray.

8–10 DAYS

Mill it into flour

These are hard red winter wheat berries — bread wheat. Run them through a grain mill and you have flour that was whole grain twenty seconds ago.

MINUTES

Cook it as a grain

Simmered whole, wheat berries are a chewy, nutty grain like farro or barley. No equipment at all — just a pot.

ABOUT AN HOUR

WHAT YOU ACTUALLY BOUGHT

Hard Red Winter Wheat (*Triticum aestivum*) — whole, untreated, uncoated berries. It is the same grain that mills into bread flour, and it is the standard wheat for growing wheatgrass. Nothing about it is specialised for one use over another; the only difference between a tray of juice grass and a loaf of bread is what you decide to do on the day you open the bag.

GROWING IT FOR JUICE — SIX MOVES

1

Soak

8–12 HR

Cover 2 cups of berries with plenty of cool water and leave them overnight. They swell to nearly double.

2

Pre-sprout

12–24 HR

Drain well, then rinse and drain every 8–12 hours until you see **tiny white root tips**. Usually one or two rinses.

3

Sow

DAY 0

Spread over 1–2" of damp soil in a 10×20 tray, in a dense single layer, berries touching. Do not bury them.

4

Cover

DAY 1–4

Cover with an inverted tray until the grass is 1–2" tall and lifting the lid — usually 2 to 4 days. Mist if the surface dries.

5

Light

DAY 3–4

Uncover. Bright indirect light, and **water from the bottom** from here on. It greens up within a day.

6

Cut

DAY 8–10

Harvest at 6–8", when a second blade appears alongside the first. Cut just above the soil.

WHAT EACH DAY LOOKS LIKE

DAY -1

Soak

2 cups of berries in cool water overnight.

DAY 0

Pre-sprout & sow

Rinse until root tips show, then spread on damp soil and cover.

DAY 1–4

Under the lid

Roots knit into a mat. Pale shoots start lifting the cover.

DAY 3–4

Uncover

Yellow-white and 1–2" tall. Into the light; green within a day.

DAY 5–7

Running up

Deep green, an inch or more a day. Bottom-water daily.

DAY 8–10

Harvest

6–8" and showing a second blade. Cut the whole tray.

CUT IT WHEN IT SPLITS, NOT WHEN IT LOOKS TALL

The signal to harvest is not height on its own — it is the moment a **second blade appears alongside the first**, which usually happens somewhere around 6 to 8 inches on day 8 to 10. Cut it there and the juice is at its sweetest. Left another few days the grass keeps growing but turns tough and stringy, and the juice gets noticeably harsher. Early is better than late.

HARVESTING AND THE SECOND CUT

- **Cut just above the soil** with sharp scissors or a knife, a handful at a time. Do not pull — you will lift the whole mat.
- **Cut dry.** Skip the watering on harvest morning. Wet grass keeps badly.
- **A second cut works.** Keep watering the tray and it regrows, usually shorter and thinner over about a week.
- **It will not taste the same.** The second cut is less sweet and more fibrous, and a third is rarely worth the tray space.
- **Then compost it** — soil, root mat and all. It breaks down quickly.
- **Store cut grass** loosely bagged in the fridge, dry — it holds up to about two weeks at 38–40°F.
- **Juice it fresh** where you can. Fresh-cut grass juices more easily and tastes better than grass that has been sitting.
- **Stagger your trays.** Start one every three or four days and you have a continuous supply instead of ten days of feast and famine.
- **Yield varies a lot** with seed density, light and how hard your juicer works. Treat every figure here as typical, not promised.

JUICING IT

JUICER TYPE	WORKS?	WHY
Manual wheatgrass juicer	Yes	A hand-crank auger that clamps to the counter. Cheap, no electricity, and made for exactly this. The usual starting point
Masticating / slow / auger	Yes	Single-auger cold-press models crush and squeeze rather than shred. The best yield and the easiest cleanup of the powered options
Twin-gear / triturating	Yes	The highest extraction of any type, and priced accordingly. Overkill unless you are juicing daily
Centrifugal juicer	No	Spins too fast to grip long fibrous blades — the grass wraps the basket and comes out almost dry. This is the single most common wasted purchase
Blender	Sort of	Blend with a little water and strain hard through a nut-milk bag or fine cloth. It works, it is messy, and the yield is poor. Fine for trying it before you buy a juicer

WHAT TO EXPECT FROM ONE TRAY

A well-grown 10×20 tray gives roughly **10 ounces of juice** the first few times you do it, and up to about **20 ounces** once you have a good juicer and a feel for it. Most people drink **1 to 2 ounces** at a time. Juice it fresh and drink it soon after — or freeze it in an ice-cube tray, which is how most regular growers handle a big tray.

START SMALL

Wheatgrass juice is strong, sweet and grassy, and it is not subtle. Most people start with an ounce and see how they get on with it before drinking more. If you have any health condition, are pregnant, or take medication, talk to your doctor before making it a habit — the same as you would with any new addition to your diet.

GROWING IT IN A TRAY — THE FULL METHOD

Soil tray

STANDARD, BEST YIELD

1. Soak 2 cups of berries 8–12 hours; drain.
2. Rinse and drain every 8–12 hours until root tips just show — one or two cycles.
3. Fill a 10×20 tray with 1–2" of damp potting soil and level it flat.
4. Spread the sprouted berries in a dense single layer. Press gently; do not cover with soil.
5. Cover with an inverted tray for 2–4 days, until the grass is lifting it. Mist if it dries.
6. Uncover at 1–2", move to bright indirect light, bottom-water daily.
7. Cut at 6–8", day 8–10.

NOTE

A flat, level soil bed is what gives an even tray. Low spots hold water and grow mold.

Without soil

TIDIER, SMALLER CROP

1. Soak and pre-sprout exactly as above.
2. Line a tray with a hydroponic grow mat, or several layers of paper towel.
3. Spread the sprouted berries in one dense layer across the damp mat.
4. Cover 2–4 days, keeping the mat damp but never flooded.
5. Uncover, bright indirect light, and add water to the tray as the mat dries.
6. Cut at 6–8", usually a day or so behind the soil tray.

NOTE

No soil to compost and no dirt in the kitchen, but the grass has nothing to feed on, so it runs shorter and the second cut is weak.

KEEPING A SUPPLY GOING

- **Stagger your sowings.** Start a fresh tray every three or four days and you always have grass at cutting height rather than a glut followed by nothing.
- **Two smaller trays** beat one big one for the same reason — they finish at different times.
- **Label the sow date.** A strip of tape on the tray edge saves a lot of guessing about which one is ready.
- **Room temperature and moving air** is the whole environment. Warm and still is how trays go wrong.
- **Reuse trays, not soil.** Wash trays between crops; compost the spent root mat.
- **Two cups of berries per tray** means a one-pound bag runs roughly four or five trays.

MILLING IT INTO FLOUR

Hard red winter wheat is bread wheat — the high-protein class millers use for yeasted loaves. Whole berries keep far longer than flour does, which is the whole point of milling as you bake: you store the grain, not the flour.

MILL	WORKS?	NOTES
Burr or stone grain mill	Best	Consistent, genuinely fine flour, and it handles volume. If you bake regularly this is the tool
Hand-crank grain mill	Yes	Slow, and real work. No electricity and nothing to break — the storage and off-grid choice
Stand-mixer grain attachment	Yes	Fine for a loaf or two at a time. Grind in small batches and let it rest between them
High-speed blender, dry container	Sort of	A dry-grains container in a powerful blender makes usable flour, coarser and warmer than a mill. Good enough to start with
Impact / micronizer mill	Yes	Fast, and the finest flour of any home mill. Loud, and it warms the flour more than a stone burr
Food processor	Not really	You get a gritty cracked-wheat meal, usable in pancakes or flatbread but never real flour

BAKING WITH FLOUR YOU GROUND YOURSELF

- **Weight does not change:** a pound of berries makes a pound of flour. By volume expect roughly **1½ to 2 cups of flour per cup of berries**, depending how fine your mill leaves it — freshly milled flour is fluffier than store-bought, so weigh rather than scoop.
- **It is 100% whole wheat** unless you sift. The bran and germ are still in there, which is the flavour, and also the reason it behaves differently.
- **Add more water** — about **2 teaspoons per cup** of whole wheat you swap in. Bran and germ drink more than white flour, and if the dough feels tight, it is.
- **Let it rest.** Twenty to thirty minutes after mixing lets the bran soften and hydrate, and the loaf comes out less dense.
- **Start at 25–50%.** Swap a quarter to half of the flour in a recipe you already know before going all in.
- **Sift for a lighter crumb** if you want something closer to bread flour — you are removing the coarse bran.
- **Use it fresh.** Flavour peaks in the first few days. It does not spoil then — figure a month or three at cool room temperature — but the germ oil oxidises steadily, which is exactly why commercial flour has the germ removed.
- **Store leftovers cold.** Fridge or freezer buys months. Whole berries keep far longer than flour — years, if they are sealed, cool and dry — so store the grain and grind what you need.

SPROUTED FLOUR, IF YOU WANT TO GO FURTHER

Sprout the berries as if you were pre-sprouting for a tray — soak 8–12 hours, then rinse and drain until the root tips just show. **Stop while the tail is still shorter than the grain** — longer than that and the flour turns gummy. Dry them completely at around 110–115°F, in a dehydrator or an oven on its lowest setting with the door cracked, until a berry snaps rather than bends. Then mill as usual. The flour is sweeter and slightly more delicate than unsprouted, and it behaves a little differently in a dough. **Dry them properly.** Milling anything still damp gums up a mill, and flour made from under-dried grain will not keep.

COOKING THE BERRIES WHOLE

- **Rinse, then simmer** one part berries to three parts water, 50–60 minutes, until chewy not mushy.
- **Soaking overnight first** cuts that to about 35–45 minutes.
- **A pressure cooker** does it in about 20 minutes at high pressure, plus a natural release.
- **Use them like farro or barley** — grain bowls, hearty salads, soups, or with butter and salt as a side.
- **They freeze well** cooked, so make a big batch and portion it.
- **Cooked berries keep** 3–4 days refrigerated, per standard leftover guidance.

MILLING — SOMETHING WENT WRONG

WHAT YOU SEE	WHY IT HAPPENS	WHAT TO DO
Gritty flour, not fine	The mill is set too coarse, or the tool cannot get there — a food processor never does.	Tighten the mill and run the flour through a second time. Sift out the coarse bran and re-grind it if you want a finer result
Flour comes out warm	Friction, especially in a blender or an impact mill. Heat is what starts flour going stale.	Grind in short batches, let the machine rest, and spread the flour to cool before sealing it away
Bread is dense and heavy	Whole wheat flour is thirstier and the bran cuts gluten strands as the dough rises.	Add water, rest the dough 20–30 minutes before kneading, and swap only 25–50% of the flour until you know how it behaves
Flour smells sharp or bitter	The germ oil has oxidised. Whole flour does not keep like white flour does.	Grind smaller amounts more often. Refrigerate or freeze anything you are not using in a few days
The mill gums up	Damp grain. Usually sprouted berries that were not dried all the way through.	Dry sprouted grain until a berry <i>snaps</i> . If it bends, it is still wet. Never mill soaked or damp berries

GROWING AND JUICING — SOMETHING WENT WRONG

WHAT YOU SEE	WHY IT HAPPENS	WHAT TO DO
Mold in the tray	The number one wheatgrass problem. Seed sown too thickly, too much water, no air movement, or a soaked seed bed that never drains. Warm rooms make all of it worse.	Thin the sowing to a single layer, bottom-water only and less of it, and get air moving with a cracked window or a small fan. If it is grey-green, fuzzy and musty, compost the tray — do not juice around it
White fuzz at the roots	Usually root hairs, not mold. Bright white, fine, uniform, attached to the roots right under the seed, and no smell at all.	Nothing. It is a sign of a healthy root mat. Mold sits on top, spreads across the surface, is grey or blue-green, and smells musty — if you cannot tell, throw it out
Tall, pale, floppy grass	Left covered too long, or not enough light once uncovered.	Uncover as soon as it is 1–2" and pushing the lid. Move it brighter, or add a cheap shop light 6–12" overhead
Patchy, bald spots	Uneven sowing, an unlevel soil bed, or dry patches during germination.	Level the soil before sowing and mist thoroughly. Spread the berries in two passes at right angles for even coverage
Bitter, harsh juice	Cut too late. Once the second blade is well up, the grass turns fibrous and the flavour goes with it.	Harvest when the second blade appears, day 8–10, not by height alone. Cutting a day early is always better than a day late
Almost no juice	Nearly always a centrifugal juicer, which cannot grip long fibre. Sometimes grass that sat too long after cutting.	Use a manual wheatgrass juicer or a masticating model. Juice within a day of cutting. Run the pulp through a second time for a little more
Juicer keeps clogging	Feeding too much at once, or grass that is over-mature and stringy.	Feed small pinches slowly and steadily. Bunch the blades and go gently. Cutting at the right stage helps more than anything
Second cut is weak	Normal — the seed's stored energy went into the first cut.	Expect a shorter, thinner, less sweet second cut, then start a fresh tray. Trays without soil especially may not give a usable second cut

Sensible handling

- Clean hands, clean trays, clean juicer, clean mill. Wash between crops and between grinds.
- Use drinkable water for soaking, rinsing and watering.
- Grow at normal room temperature with air moving, out of direct sun. Warm and still is how a tray goes mouldy.
- Never juice grass from a tray with mold in it, and never mill grain that smells musty. Compost it instead.
- Juice fresh and drink it soon after. Cut grass keeps up to about two weeks refrigerated; juice is best fresh, though it freezes well in an ice-cube tray.
- Wheatgrass and wheat are the same plant. If you avoid wheat or gluten for any reason, treat this bag accordingly and ask your doctor about the juice.
- Rinse the cut grass before juicing. It is grown warm and damp for well over a week, which is a hospitable environment for more than just wheat.
- If you are pregnant, elderly, immunocompromised, taking medication, or managing any health condition, talk to your doctor before adding wheatgrass juice or any raw sprouted green to your routine.

QUESTIONS WE GET A LOT**Is this the same seed you sell as cat grass?**

Yes, exactly the same. Cut short and set on the floor it is cat grass; grown to seven inches and juiced it is wheatgrass; milled it is flour. One seed, three jobs.

Can I grow wheatgrass without a juicer?

You can blend and strain it through a nut-milk bag. Messy and low-yield, but a fair way to find out whether you like it before spending money.

Do I have to pre-sprout before sowing?

No, but it helps. Pre-sprouted berries come up faster and more evenly, and there is less time sitting wet on the soil for mold to get started.

Is hard red the right wheat for bread?

It is the classic bread wheat — higher protein than soft wheat, which is what a yeasted loaf wants. For tender pastry and cake, soft white wheat suits better.

How long does the seed keep?

Years if it stays dry and cool. Whole wheat is one of the most storable foods there is, which is exactly why it is a storage staple.

STORING THE REST OF THE BAG

Reseal it and keep it cool, dark and dry — pantry is fine, freezer is better, and for long-term storage an airtight bucket or a mylar bag with an oxygen absorber. Never return damp or soaked berries to the bag.

Questions about your tray, your juicer or your loaf? We actually answer.

Todd's Seeds is a family-owned business. Tell us what you saw and we'll help you get the next one right.