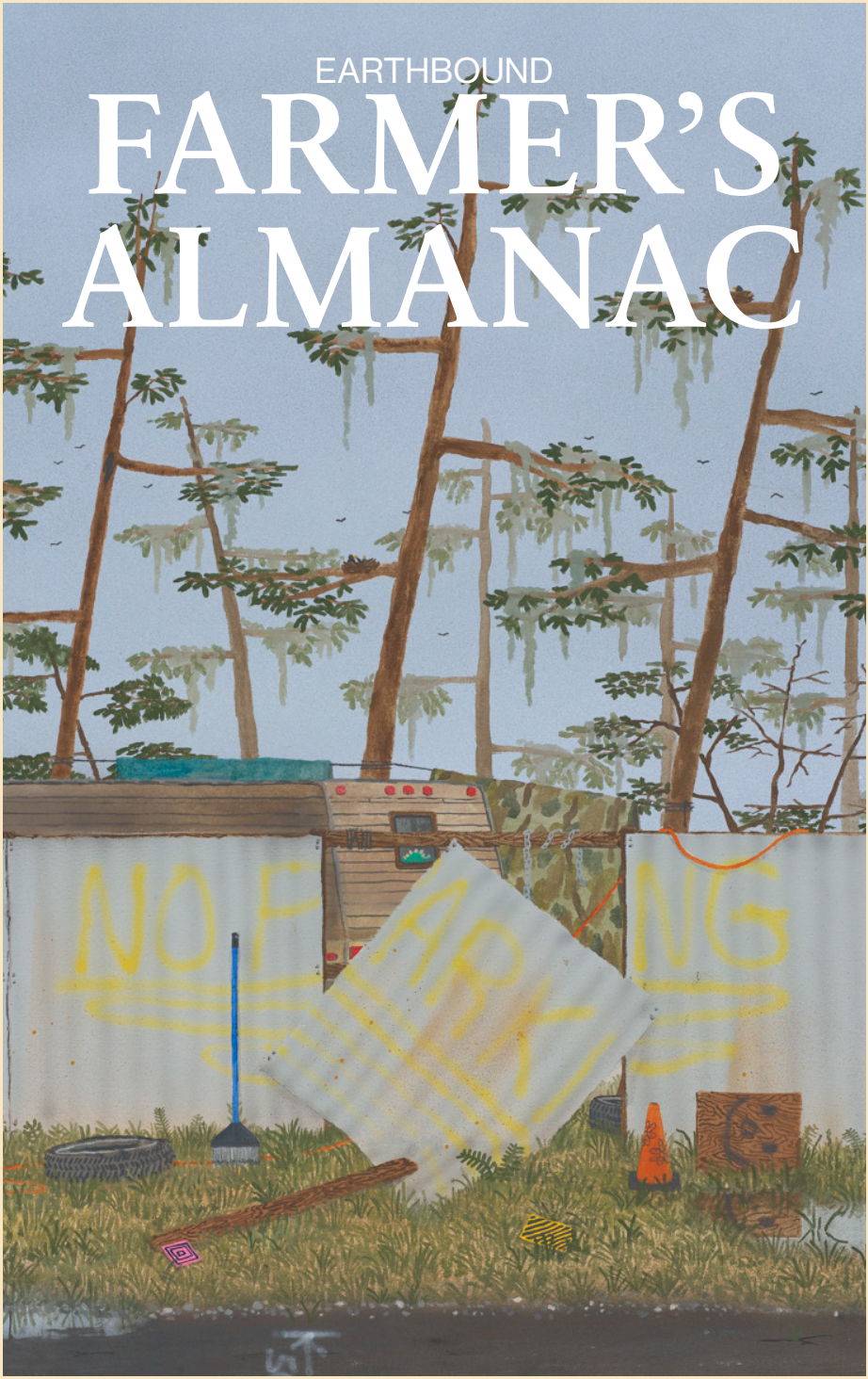
EARTHBOUND

FARMER'S ALMANAC



History of the Pineywoods

DIY Air Prune Beds

Celebrating the Ground Cherry

Defending the Forest

Earthbound Farmer's Almanac

2023

Lobelia Commons

For Tortuguita

Cover illustration: “NO Parking” by Max Seckel
Layout and design by sinking city @SinkCityComms

Lobelia Commons is a decentralized network for food autonomy and neighborhood survival based in Bvlbancha (so-called New Orleans, LA and it’s surrounding region).

Note from the Editorial Collective

Making this almanac is sort of an ordeal. Some of us live in cities, others in the woods, on land projects, on farms. We drive back and forth, in and out of phone service, our cars loaded with mushrooms and trees, hurling texts, voice messages and e-mails in stops and starts. Once in a while, some of us manage to get together in person to discuss, edit, plan, share a meal, get too stoned, go out dancing.

This is our third year putting the almanac out; it gets a little smoother each round (and we inch ever closer to a timely release). The inevitable setbacks and snags feel familiar from our experiences tending neighborhood gardens, food forests, and mushroom setups. As with planting, we never know until we hold it in our hands if our work will yield fruits. But the almanac cycle has become a part of our lives, an affirming addition and throughline for the rest of the work we do together and separately.

We have no coherent political platform, nor do we want one. What we have in common is a desire to participate in this miraculous world—and confront the institutions of empire that destroy it. The practices advocated in these pages will not make sense everywhere, and no one theory we could offer could tie them all together. An "Earthbound Farmer's Almanac," and all the generalness that implies, is only relevant in a time like ours, when so many real earthbound cultures have been stamped out, when so much traditional knowledge has been violently eradicated, when the terms of survival on our landscapes are changing because of ongoing ecological violence.

Illustration by Luke Howard

With remarkable strength of will and courage however, many cultures all over the Earth have resisted colonialism and succeeded. Black, Indigenous and queer peoples have fought off centuries of not only genocide but decimation of memory, spirit and imagination. Through generations these lifeways—the contraband of empire—give hope to all those rooting for life on earth. Or as Krenak leader and thinker Ailton Krenak has said, "By always being able to tell one more story, we postpone the end of the world."[1]

This almanac is not a manifesto but a sort of flawed map we are drawing to find our way out of this colonial nowhere, a tool for prying open the gates to ways of living on earth beyond our stunted imaginations. If we share a vision for where we're headed, it's a future in which this almanac becomes irrelevant once again.

But we're not waiting for that future, and this almanac—in all its joyous fumblings and successes—is one of our ways of not waiting.

We received many submissions this year, and all influence our evolving notions of what it means to be earthbound. Whether it's a dispatch from an encampment resisting the destruction of an urban forest, a family recipe, or an anticololonial history of Southern cattle, we share these things because we think they will help in some way.

We claim nothing. All that is shared here are gifts from individuals and collectives all over. We hope that some of what is offered here is helpful in forging new cultures, and adding to old ones, in whatever place the reader is in relation to.

1 Ailton Krenak and Maurício Meirelles, "Our Worlds Are at War" (https://www.e-flux.com/journal/110/335038/our-worlds-are-at-war/)

Photo by Elena Ricci

2023

Photo(top) by Sarah Ristaino

Earthbound Farmer's Almanac 2023

The Earthbound Farmer's Almanac sources writing from the region surrounding Bulbancha and the wider so-called united states of america. The editorial collective includes but is not limited to participants in the activities of Lobelia Commons. Not all of what is printed here strictly adheres to any one of our individual views of the world nor do we even have a coherent collective political position.

What is included here represents nudges, suggestions and offerings, tethered at times, entangled others, with what we find important in guiding our involvements in the world.

So You Want to Start a Mutual Aid Garden

jacob ingalls

The production of food is central to any attempt to reorganize society, and especially to the pursuit of a social order built on the principles of reciprocity, ecology and autonomy. All radicals should maintain some garden practice, some relationship and intimacy with the food they consume and share with others, even if they are not themselves doing the bulk of the actual production in their community. That said, many of us will center our struggle on our gardens and the roles that they play in the construction and maintenance of a new society. Some day in the future this will mean the horizontal and decentralized coordination of production and distribution across large distances according to need and the will of those involved. It will mean the mobilization of resources to areas stricken by drought or disaster, or of certain staple crops to regions with a more limited scope of production. For right now, however, it can just mean the growing of food and medicine for ourselves and those in our immediate community. A good garden must be a fixture and a hub within

Photo by Elena Ricci

its city, town, neighborhood or region: a place not only for production, but for revelry and camaraderie, the exchange of news and ideas, education and quiet reflection. If we are serious about this, we will need to check our egos and allow for the garden to be managed directly and equitably by the people whom it is meant to feed. This includes ourselves and our neighbors and anyone else with a need to fill and a willingness to participate.

So now let's consider where we will build our garden. Is there an existing or lapsed garden space that could be reoriented toward mutual aid? Or will we be starting from scratch? How accessible is the space to the people who will be tending it? Are the neighbors into it? Will they eat from the garden? Will they be inspired to participate? Likely, the space will be leased or squatted, but it's also possible that we or some comrades own land that we might use. If so, what steps can we take from the outset to ensure that the space is maintained in a cooperative and egalitarian manner and that we do not succumb to the temptations of profit- and rent-seeking?

What other resources are available to us? Will the garden be hooked up to city water or power? Could we share a hose with a sympathetic neighbor? If our region reliably gets some amount of rain, then we should be able to meet our watering needs with a simple rain catchment system,

Photo by Elena Ricci

or we may go all in building berms and swales and recycling every bit of moisture. This all depends on our particular conditions.

In some cases we can amend the existing soil with compost and plant right into that, but this is highly dependent on our region, as well as on the makeup and history of that particular plot. Beyond just the quality and fertility of the soil, we should be mindful of possible contaminants like heavy metals and run-off from nearby roads or other paved areas. We may well decide to garden in raised beds, or at least to add some more workable soil on top of whatever is already there. We can make our own compost – and we should! – but to start a garden from scratch we will probably need to bring some in from offsite, whether we purchase it or we can source it from another friendly farm or garden.

Depending on our particular climate and conditions, it's likely that we will benefit from some means of season-extension, such as a protected area for the starting of seeds before moving the plants into the harsher elements of the garden proper. Here in the Gulf South, we can add precious weeks or months to our growing season with the strategic use of shade cloth (or any other shady area that lets through some filtered light, a-la shade cloth). In colder climates the same is achieved by the reverse – growing seedlings under plastic during the colder months. With such nursery

Photo by Elena Ricci

infrastructure in place, it quickly becomes easy to start many more plants than will fit in our garden, and we should consider some means of distributing plants in our community in addition to produce.

Hopefully at this point we have considered where that food will go. It is likely that there is a mutual aid kitchen or distro in our area already, and we ought to reach out to them. How often do they accept produce? Of what kind and in what condition do they prefer? Do they have cold storage? Do we? Maybe we will decide to process the food ourselves, in a home kitchen or on-site at the garden itself. If we choose the latter, we may need some more relevant infrastructure at the garden, such as cleanable surfaces, potable water, and maybe a fridge or sink.

Once we've got an idea of where the produce will go and how frequently, we can begin to plan our crops accordingly. For frequent or regular harvests, we can plant cut-and-come-again vegetables that will regrow and yield many harvests. This can include most leafy greens like collards and kale, mustards, chard, loose-leaf lettuces or dandelion. Many leafy vegetables, in addition to their greens, eventually also provide for the harvest of another part of the plant, as in the cases of broccoli, beets and sweet potatoes. Used prudently, these crops can be an excellent use of space. We might consider periodically fruiting crops as well, such as peas and beans, berries, cucumbers and tree fruits and nuts. These provide wonderful additions to our harvests when in season.

Then there's the full season crops that yield one large harvest per year, but can be storable or even shelf stable with a simple curing process. These include many root, rhizome and tuber crops, winter squash and melons, bulb onions and garlic and cabbages. These can sometimes take up a good deal of space with little or no yield during the growing season, but they can get by with very little care, and the harvests can be stored and doled out as needed. These are good choices for gardens wherein space is more plentiful, or in regions with shorter growing seasons, where fresh produce is not available for much of the year.

The best course most often is a mix of all these types of crops and more. It's good to aim for abundance, but we should aim also for manageable harvests at workable intervals, rather than erratic, wasteful or poorly timed yields.

We can also diversify between annual (or biennial) and perennial crops, as well as patches of self-seeding annuals who reproduce with no effort on our part. We'll want to consider what assurance we have of continued access and use of the space before going around planting trees and berries with a many-years turnaround, but honestly I say go for it either way. We can always dig up or propagate from any established perennials if we're forced to move.

It's a good idea also to diversify our plantings between new and exciting crops – the kinds of things we see on the internet and in seed catalogs or hear about on podcasts – as well as plenty of the more "standard" vegetables that we know for sure will be eaten and appreciated in our community. (Often we will find that there are exciting crops that have a cultural or culinary importance to our region or some community within it. These are a homerun.)

This is all a lot for one person, or even two or three, to do on their own. Between planting, pruning, mulching, harvesting and watering, any productive garden – including the headiest of permaculture installations – takes a lot of work. Gardeners are active participants in their gardens, just like the worms and the bacteria and the minerals and plants and the multitudes of other participants. We are a part of its metabolic processes, and we give and take alike. I don't need to enumerate the differences between mutual aid and charity here, but suffice it to say that our garden will require the participation of many human members of our community as well, and it will be better for it.

This is how we will grow the project, building autonomy and networks of care. We can add more gardens on more lots within our region, coordinating them horizontally for greatest impact. We can maintain use-specific spaces like seed gardens or experimental plots for trialing new crops and methods. We can cooperate to produce our own soil and other resources. We can federate our gardens and join forces with other networks in other regions in an ever widening web. We can share knowledge and seeds and labor, defend land, respond to disasters and combat commodification and alienation wherever we encounter them.

So – please! – start tending your garden and growing its network. I will be working here in my garden, within its network, and someday soon our

networks will overlap and join with each other and a thousand others. Until that day, let's work where we're at, with the people around us, in our gardens and in our communities.

Photo by Jana

A Recipe from the Land: Plantain Salve

EKI

At least two species of plantain grow in this part of the east coast of the US (Chesapeake Bay region, Piscataway land). Neither is related to the fruit. Plantago lanceolata has long, narrow green leaves and stalks that shoot up and unfurl tiny white flowers at the tips. Plantago major has broad, deeply veined ovoid leaves whose stalks are entirely covered in small green buds and later, in small green seeds. The second is the one used in this recipe.

Plantain has a variety of culinary and medical uses. Young leaves can be eaten raw in salads; young stalks can be fried and are known as "poor man's asparagus" for their nutty flavor; older leaves can be dried and used in soups and stews; and dried seeds can even be ground and used as a flax egg substitute. The leaf chewed and applied to a bug bite becomes a soothing spit poultice, and plantago major's folk medicinal uses include poultices and salves useful for calming the itches or pain of cuts, scrapes, bug bites, and stings.

This plantain salve preserves the magic of the "spit poultice" for later, but the recipe can be customized to fit what you have in terms of oils, beeswaxes, and containers, even which herbs you use. Some possible adaptations: Use this same recipe for any herb or flower of your choice (such as goldenrod for pain and inflammation, an Appalachian folk remedy, or lavender for stress relief or massage).

The recipe makes about 12 oz, so I've written it to fill 12 one-ounce tins, but you can adjust amounts based on how much you want, and can use any tin or jar of your choice to hold your salve (smaller jars are easier to scoop salve from).

I also used refined beeswax pastilles, making the salve a lighter color, but you can use unrefined beeswax pastilles (a deeper yellow) or grated refined or unrefined beeswax.

Happy medicine making!

Plantain Salve

Yield: 12 oz

Ingredients

12 plantain leaves, fresh or dried (I prefer dried so there's no chance of mold in your oil)

About 8 ounces or 1 cup of oil (I use extra virgin olive oil)

1 ounce (3 tbsp tightly packed) beeswax pastilles or grated beeswax

A jar large enough to hold your oil and leaves for infusion

Cheesecloth

Pot large enough to hold your oil and leaves for infusion

Spatula

Double boiler or glass bowl that fits in the pot

Clean tins or jars of choice

Labels of choice

Directions

1. Forage or harvest plantain leaves from a pesticide-free area or your own yard. Wash and dry off leaves; hang to dry out until crunchy (1-2 weeks).

2. Add leaves to large jar and pour in oil, then cover jar with cheesecloth and secure the covering. Let it infuse in the sunniest available spot for about two weeks.

3. Pour oil and leaves into small pot on stove over low heat, infusing the oil further for about two hours.

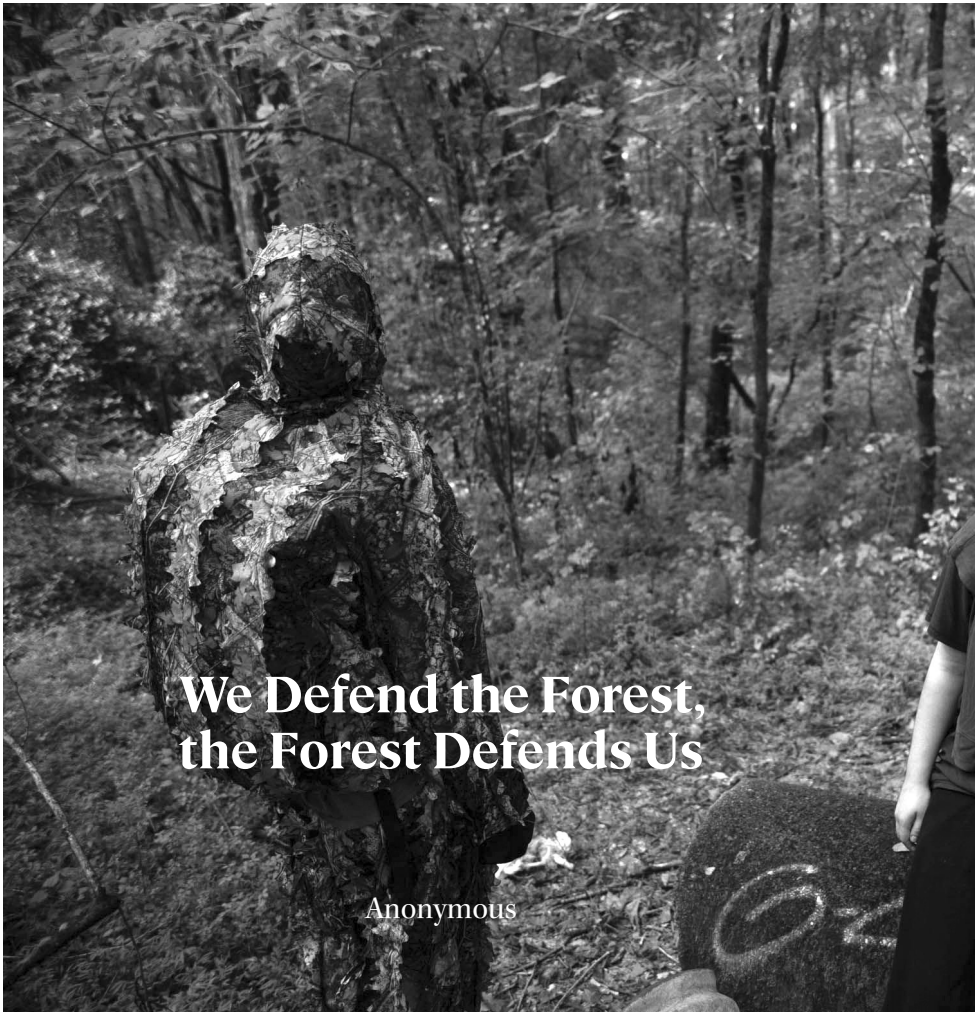
4. Pour oil and leaves from pot back into jar, straining out and composting leaves. Clean pot.

5. Return pot to stove with an inch or two of water in the bottom. Nest double boiler or bowl in pot, on top of water. Pour oil and beeswax into double boiler.

6. Over medium low heat, let mixture combine in double boiler until wax melts, stirring occasionally.

7. While mixture is heating, open and label tins or jars where you'll pour your salve.

8. As soon as the wax melts, give the mixture a final stir, then pour or ladle about one ounce of salve into each container (if using 12 one-ounce containers or tins). Let the salve cool so it solidifies, then close the containers. You can store this in the refrigerator or at room temperature.



We Defend the Forest, the Forest Defends Us

Anonymous

I lean against a tall tree while an Atlanta Police Department helicopter thunders overhead, fifty feet above me just beyond the canopy. The people in the chopper believe that this forest will be razed and turned into the largest police training campus in the country, including munitions and firearms ranges, a mock city for urban combat drills, and the largest soundstage complex on earth (in partnership with Blackhall Studios). The latter, they think, will be used to produce Hollywood movies and virtual reality. I instead believe that the forest will remain a forest. We are at war.

Photo by Jack Crosbie

As much as the forest needs us at this moment, we also need the forest. As climate change has already brought unprecedented heat and flooding to south Atlanta, we remember that the forest cools the air, shades the soil, and absorbs storm water. As famine spreads because the capitalist food system crashes against limits imposed by its own destruction of the earth, we are reminded that the South River Forest is already a food forest with many wild fruit trees and other edible plants.

We who defend and inhabit this forest have also begun planting crops and fruit trees in natural clearings and sowing edible native wildflowers in the paths of destruction left by Blackhall Studios bulldozers. By the time the Cop City project is eventually defeated, and the police are humiliated and driven from this forest, we will have already begun gently transforming it into a zone of communal food production: grafting cider apples onto Bradford pears; clearing privet and scrub with goat herding; reducing insect density with chickens, guineas, and ducks; thinning young oaks, hackberry, and maple to inspire mushroom production; planting sunchokes, sochan, nettles, cowpeas, sweet potatoes, squash, beans, okra, as well as chestnut, persimmon, pawpaw, serviceberry, mulberry, and fig trees. This is not only to feed ourselves, but also to produce a positive, material, place-based culture. This is our alternative to the destruction promised by a future ruled by cops and virtual reality.

Hiding beneath the old tree, I can clearly make out a figure inside the

helicopter. I remind myself that there's almost no way he could have seen me. In this way and others, the forest protects us. The visibility from police helicopters and drones is rendered mostly useless by the canopy, driven up by a lifelong growth towards the sun. I take the opportunity to graze on a patch of tiny wild strawberries; they are smaller than peas and not very sweet, but my water bottle is empty, and their juice is refreshing. Before long the chopper veers off.

Strange moments like these are common here. The slow time of the forest breaks through the fast time of crisis, and two different worlds slide past each other. In one, my fast-beating heart. In the other, the calm and patient vastness of a centuries-old water oak. In one such moment together, while on our way to gather old truck tires for a barricade, we stop under a mulberry tree. "These are going to get me in trouble one of these days, running from the cops and I'm here stopping to snack," says one friend, recognizing the danger inherent in getting stuck in one temporality while your enemy is operating in another.

The police are not immune to this danger either: caught in the bureaucratic time of work weeks and fiscal years, the entire Cop City project can be understood as a knee-jerk reaction to conditions imposed by the George Floyd Rebellion, particularly the police's loss of legitimacy. They are even having trouble hiring new officers. Meanwhile, they are oblivious to the deep time of this forest, to all the many relationships that have developed between the forest and the people who use it.

They are unaware of the weight of all the harm done by them and their predecessors, the slow accretion of centuries of rage, fear, and despair into sediment, strata, and eventually tectonic plates grinding against each other, their movement slow and gradual until it isn't.

This ignorance is nowhere more apparent than their plan to destroy and build over the ruins of the old Atlanta City Prison Farm, a prison where incarcerated people were forced to live and work to produce food for Atlanta's carceral system from 1920 to 1989. It's unlikely that this is a conscious attempt by the police to erase the history of their own crimes.

They have already absolved and forgiven themselves. Indeed, rather than distancing themselves from the legacy of the prison farm, the Atlanta Police Foundation seems to have been inspired by it, including "urban

gardens" in their design, where inmates from At Promise Youth Centers (police-run reeducation camps for unruly children) would work as part of court-ordered diversion programs. In short, prison slavery made green. Meanwhile, the plans place new explosives and firearms shooting ranges alongside the existing child jail and adult correctional center on the southern edge of the forest, so that the people who are held there would be forced to listen to the police training to kill.

Looking at the plans for Cop City, it is abundantly clear that the police do not see the 2020 uprising as finished. They have not recovered from that moment. It continues to haunt their dreams and they fear its return. They do not feel that their control is guaranteed. Despite this, they also continue to misunderstand the opposition to them, so that even a project dreamed up to bolster their morale and polish their image has been viewed by most people as a new nightmare, and as a result has inspired yet another burning barricade in their path.

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https://www.e-flux.com/journal/128/472900/planting-and-becoming/

Photo by Jack Crosbie

"On the Olympic peninsula we had a record dry and hot October, with the summer drought continuing for 4-6 weeks longer than normal and temps in the 80s thru late October. Temps dropped fast when the rains started, but not fast enough for plants to lose their leaves and go dormant. Last Friday we had a huge rain and windstorm that took down a bunch of trees; yesterday it snowed several inches of wet, heavy snow. With all their leaves still on and the sap still running, all of the trees got weighed down; I listened to branches and trees coming down all night, and woke up to all of the younger saplings and shrubs bent double with the weight of the snow. Their leaves are still green but covered in snow and ice. Tonight we'll get lows down to 28F.

Normally we don't get -snow- snow here until December or January. The combination of drought and heat stress, and now early snow and freezing temps, is not good for any of our trees out here. Sure is pretty tho."

Trees of Abundance

Keystone Tree Crops Cooperative

Farmers, nursery owners, agroforestry experts, and tree crop enthusiasts are coming together to form Keystone Tree Crops Cooperative (KTCC), to increase the capacity of those who grow and gather tree crops to process them into consumer goods and make them available to the public. KTCC is guided by bioregionalism, individual empowerment, equitability, and education. This co-op values mutualism in economics as well as in ecological relationships. Our strategic goals:

A. Establish a pilot processing hub to collect and process nuts for edible oils and flours.

B. Produce a feasibility study and market analysis for the top-ten regional tree crop products.

C. Plan and establish a network of growers, gatherers, and key supply chain locations for Pennsylvania.

D. Develop nurseries to breed climate-adapted trees, focused on improved genetics for production, and develop accessible educational

Jar of hickory nut oil pressed by KTCC.

content for the expansion of low-input propagation and processing businesses.

This cooperative group of growers and gatherers sees the potential of trees to sustainably produce abundant food. Hickory nuts, chestnuts, and walnuts rain down from trees all over Pennsylvania and mostly go unused by humans. And the potential to produce even more food from trees is massive and untapped; a single mature chestnut tree can produce 50-100 lbs of nuts per year! The group believes partnering with tree crops can address issues in conservation, climate change, food security, and land justice, all while providing highly-nutritious local foods.

> "A lot of these tree crops can have their Johnny Appleseed moment, where the equivalent of a cider press—a central processing hub in each region—can enable us to keep the trees alive and in the ground for the value of their non-timber forest products and not just the value of the timber."
>
> - Andrea Ferich, KTCC co-founder

KTCC plans to strategically trial several key products as they start their first processing hub. That includes yellowbud hickory oil, hazelnut oil, chestnut flour, elderberry and black walnut products. Supporters have raised funds for this co-op to purchase a KernKraft-20 oil press, and further contributions are welcome at www.keystonetreecrops.com/crowdfund. The strategic goals of this cooperative are also being advanced as part of Pennsylvania Association for Sustainable Agriculture (Pasa)'s Partnerships for Climate Smart Commodities project, which was awarded a $55 million grant from USDA including funds for KTCC and other co-ops.

> "Local nuts offer a lot of health and ecological potential in a time when we really need it. … Trees offer gifts of mutualism, as both forests and humans can grow better together."
>
> - Robbie Coville, KTCC co-founder

KTCC is cultivating a network of current and potential growers, gatherers, processors, distributors, and enjoyers of Mid-Atlantic tree crops. The core team which launched this initiative is working on a cooperative-ownership structure and different pathways for people to get involved, with the aim of broadening access to tree crops, like-minded community, and right livelihood in our bioregion.

If this is compelling to you, please respond to the KTCC interest survey at https://www.keystonetreecrops.com/survey and share this with your networks.

> "What we're doing is basically making a service that can tune in to this abundance in a cooperative, equitable, and ecological way."
>
> - Zach Elfers, KTCC co-founder

If you'd like to stay in touch with what KTCC is doing and find out when their products will hit the markets, as well as any other exciting news, you can subscribe to their newsletter at www.keystonetreecrops.com, or find them as Keystone Tree Crops Cooperative on Facebook and Instagram. KTCC's website also shares more about the co-op's team and story.

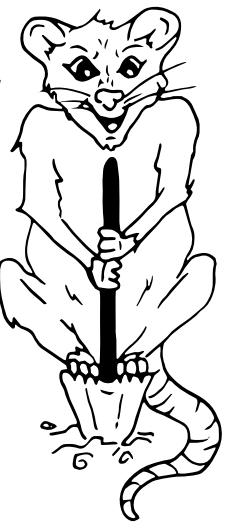
Keystone Tree Crops is guided by bioregionalism, individual empowerment, equitability, and education. This co-op values mutualism in economics as well as in ecological relationships.

"The longest night of the year is next week (one type of 'New Year') and when I step outside it feels like early spring, like the end of October. Some days recently have been downright hot in the sun; 75, maybe up to 80 degrees Fahrenheit by mid afternoon. The elephant garlic shoots have sprung up fast and long, leaning hard to the south to try and catch the vanishing sun. Most of the deciduous trees lost their leaves for good 2 weeks ago, but mold gathers on the wet piles in the warm and humid air. The mosquitoes have come back out for our ankles, the ants have reemerged in the garden, the dogs all have fleas again. Clover is popping up in the raised beds as a tell tale of spring 2 months early (or 10 months too late).

...Not to mention the increasingly looming threat of winter-time tornadoes, or the uncanny month-long droughts that bookended this year's summer, a problem rarely seen in the hot season down here [New Orleans / Bvlbancha] ...The lizards don't seem to mind, and the banana trees have extended their head start for next year's competition against the ginger. "

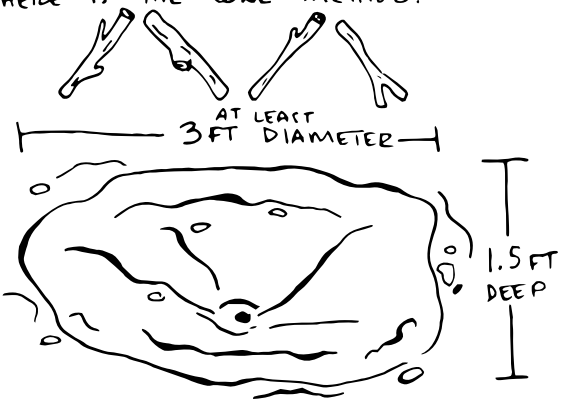
HOW TO: BIO CHAR

Quickn DIRTY



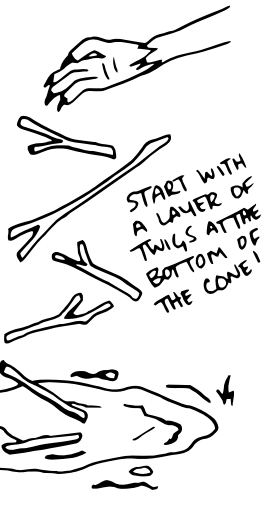
BIOCHAR IS CHARCOAL PIECES MADE FROM ORGANIC MATTER THAT HAVE PORES THAT RETAIN NUTRIENTS IN THE SOIL. THE CARBON COMPOUNDS FORM LOOSE CHEMICAL BONDS WITH SOLUBLE PLANT NUTRIENTS, LIKE AMONIA & NITROGEN, THAT ARE EASILY WASHED FROM SOIL BY RAIN LEAVING PLANTS DEFICIENT. BENIFICIAL MICROBES ALSO LIKE TO LIVE IN THESE CHARCOAL MOTELS! USING BIOCHAR IN COMBINATION WITH COMPOST CAN GREATLY IMPROVE PLANT HEALTH & NUTRIENT RETENTION IN SOIL.

THERE ARE DIFFERENT METHODS TO MAKE BIOCHAR, HERE IS THE CONE METHOD.

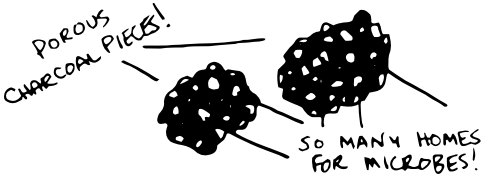


IN AN OPEN, CLEAR AREA DIG A CONE SHAPED PIT. SIZE CAN VARY BASED ON NEED. THE CONE SHAPE RESTRICTS OXYGEN FLOW TO THE FIRE SO THAT IT BURNS SLOWLY.

FOR THE CONE METHOD USE DRY TWIGS & LOGS. BEST IF ALL WOOD BEING USED HAS A SIMILAR LEVEL OF DRYNESS SO IT ALL BURNS AT A SIMILAR RATE. THE DRIER THE WOOD, THE LESS SMOKE DURING BURN & MORE BIOCHAR FOR AMOUNT OF WOOD.

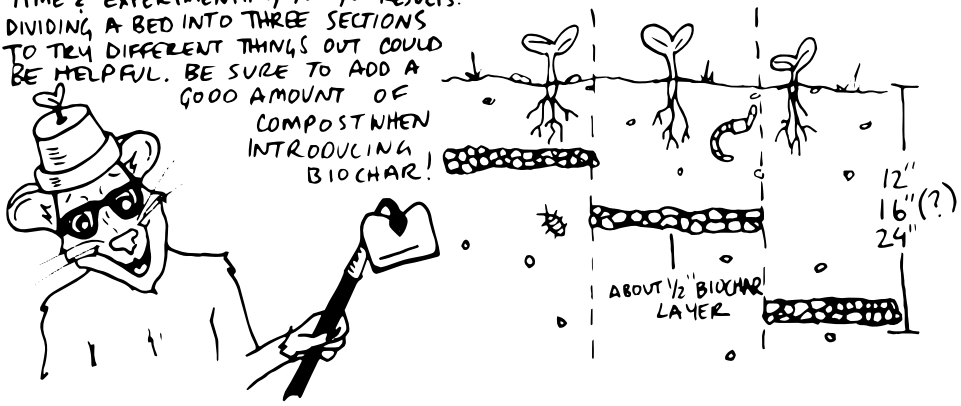


LIGHT THE FIRST LAYER OF TWIGS ON FIRE ONCE IT IS BURNING STRONLY, ADD LARGER PIECES OF WOOD.



WITH A SHOVEL OR ANY OTHER FITTING TOOL BREAK UP THE CHARCOAL CHUNKS INTO EVENLY PEA SIZED PIECES. ONCE BROKEN DOWN IT CAN BE ADDED TO THE GARDEN.

BIOCHAR IS A LONG GAME ADDITION TO THE GARDEN THAT MAY TAKE SOME TIME & EXPERIMENTING TO GET RESULTS. DIVIDING A BED INTO THREE SECTIONS TO TRY DIFFERENT THINGS OUT COULD BE HELPFUL. BE SURE TO ADD A GOOD AMOUNT OF COMPOST WHEN INTRODUCING BIOCHAR!



Crackers, Longhorns and Pineywoods

"Georgia Slim" Brown

In 2013, I began my journey to build a stronger connection to the land through my Southern heritage. I began foraging for wild foods and gardening, reading books and putting into practice what I learned. I became obsessed with veggies like North Georgia Candy Roaster and Yellow Moon & Stars Watermelon, and livestock like Pineywoods cattle. In 2019, I moved to the old family farm in West Georgia and continued to focus on heritage crops and poultry, working the land by hand. By some serendipity I learned about the energy efficiency and low cost of working-cattle, aka oxen, and I traveled to Tillers International School in Michigan and got my training as an ox driver. That fall, I did some fundraising and got two yearling calves from a fella in Sylacauga, AL who raises Barnes Pineywoods cattle. I named them Moses and Aaron, and began training them. I have learned as much from them as they have from me, and working with

them has built a connection that is unmatched by anything machinery can offer.

The story of the Pineywoods, and their related breeds, is a long and intriguing tale that goes back 500 years, and touches many a people who have called this land home.

In 1521, the Calusa tribe successfully defended their land from Spanish conquest when a tribal warrior delivered a poison arrow right into the ass of admiral Juan Ponce de Leon. The Spanish forces fled, leaving all their supplies and livestock behind. In 1528, unprovoked Spanish colonial forces, under the command of Panfilo de Narváez, attacked an Appalachee village; the Appalachee retaliated with weeks of guerrilla attacks, forcing Narváez's forces to flee for their lives with no supplies. In the 1540s, Hernando de Soto meandered his way through what is now the American South, attempting to enslave and picking fights with numerous tribes, including the Coosa, the Mabila, the Chickasaw, and the Tula. The Spaniards were defeated every time.

For nearly twenty five years, the Spanish conquistadors lost battles—and livestock—to the Native resistance. By the 1560s, Spain was able to install permanent colonies, and their animals continued to escape into the wild. Escaped sheep, goats, hogs, horses, and cattle became feral and, throughout time, adapted to the swamps, bayous, pine savannas, and oak-hickory savannas of the lowcountry South. By the time English and Celtic settlers came to the region in the early 18th century, the wild cattle herds had naturalized and became a prominent part of the emerging Cracker culture (a creole of Celtic, English, and African cultures) that centered on the wild cattle.

Crackers were early Celtic settlers who gravitated to the borderlands of the British Georgia Province and Spanish Florida. Nowadays, the origin of their name is debated, but it is most likely derived from the 16th century slang for boastful talk and "unruly" behavior; the English nobility referred to landless Celts in this way in both Britain and the lowcountry South. While their ancestry is mostly Celtic and English, the culture that has developed in their communities carries influences from African and Native cultures. For instance, the use of a whip—another possible origin of the term "Cracker"—to drive cattle is an African tradition. Even today, Cracker cattle drivers often refer to themselves as "cowhunters," because

of the way the herds were kept wild and free, and use the sound of the whips to drive the herds.[1]

The Crackers played a huge role in the emerging cattle culture, and the Muscogee even adopted some of the wild herds, but no one surpassed the Seminole in cattle herding skill or herd sizes. At their peak, the Seminole Tribe's cattle numbers reached 10,000.[2] The first recorded chief of the Alachua Band Seminole was named Ahaya and the Crackers called him "Cowkeeper" because of his massive herds of cattle he rustled during his band's move down into Alachua, now called Paynes Prairie, named after his son. The Seminole's cultural burning fit perfectly with grazers and these practices kept the prairies and woodlands open to benefit wild game and their cattle herds. The Crackers managed their own herds and the land in a nearly identical manner: moving the herds over long distances and managing the understory with fire.

1 Some have suggested that the term refers to slave drivers' whips, but this origin is unlikely, due to the fact that the term had already been in use to describe Celtic cattle herders before British settlement on the continent. For more, see: Demby, Gene (2013-07-01). "The Secret History Of The Word 'Cracker'". NPR.

2 "The Seminole Tribe and Florida Cattle Ranching: History of Native Cattlemen," www.floridaraised.com

In the 1770s, the British Crown recruited the Seminole in the war against the colonies' rebellions. The Crackers were recruited by the Georgia militias, but a few—mostly those who were more assimilated to Native customs—did join loyalist forces with the Seminole. After the war, the Seminoles remained in and to the west and south of Paynes Prairie, the Crackers remained in the Okefenokee region and along the Atlantic Coastal Plain, and the two groups were mostly amicable to this arrangement. In the early 19th century, new Planter settlers, American generals, and aristocrats wanted to take Florida by force and brought troops in from Tennessee and North Georgia to bring more war to the Seminole. It's unclear how involved the local Crackers were in these wars, but there is little evidence that they ever sided with the Seminole in any great numbers. The Seminole, though divided by the Indian Removal Act, were never entirely defeated, and their cattle culture eventually returned. Now they have one of the largest herds east of the Mississippi.[3] After all the fighting, the Seminole had lost most their land, and the Crackers remained landless and continued to run cattle on commonlands, moving westward with U.S. expansion. As they all moved west, industrialization of cattle ranching put many of their descendents on the same work crews, where they would occasionally fight in solidarity against the big cattle bosses.[4] But by that time, they were working for industrialists, not ranchers, with newly imported breeds, not the cattle of their ancestors.

In 1810, Redbone families—another mixed-race cattle people—began settling an area known as "No Man's Land" or the "Free State of Sabine," in what is now Louisiana and East Texas. These people had migrated from the eastern swamplands and Piedmont, most likely via the famous Natchez Trace. Upon their arrival, they adopted the wild cattle in the region as well, and became major contributors to modern day cowboy culture. The Free State of Sabine was called that because a border dispute between Spain and the United States had ended in a stalemate where both political powers agreed not to station any troops or law enforcement in the area. This invited the Redbones, and other people escaping both Spanish and U.S. oppressive policy, to make this place their home and take up the

3 Conner, Doyle Jr. "Ep. 78: Florida Cracker Cattle Chat." The Livestock Conservancy Animal Chats Podcast. 6/22/2022

4 "Cowboy Strike of 1883." Encyclopedia of the Great Plains. http://plainshumanities.unl.edu/encyclopedia/doc/egp.pd.015

cattle. The wild cattle out in these more open shrublands, however, had developed a unique and world-famous trait: They had long horns protruding directly out to the side of their head. We're talking massive horns. They were very similar to the Cracker cattle—small, resilient, and thrifty—but unlike the Cracker cattle, their environment had fewer trees, so they could stretch their horns out. Further selection for this trait made the Texas Longhorn what it is today.

In the early and mid-19th century low-country, especially the Gulf Coast region, most Crackers still owned no land. The land used to run cattle was regarded as common land and the herds were allowed to roam throughout the woodlands and prairies of the area. These common lands were regarded as "unproductive" and "marginal" by the plantation class, but the cowhunters knew better and made very good livings off their herds. The vast majority never owned land, but many of the families that did own land became the namesake of the existing strains of these cattle breeds. Names like Holt, Conway, Bayliss, and Barnes (families that mostly have nothing to do with cattle anymore) dot the pages of modern day cattle registries, but the real stories of these beasts are found among the thousands of nameless cowhunters that stuck it out in the common lands of the South for centuries: the Crackers, Seminole, and Redbones.

By the late 19th century, these Criollo or so-called "native" cattle had begun to be replaced by imported British breeds like Angus and Hereford. These animals were brought here for very different reasons. The larger animals would bring in more money for the new industrialist class and as the cowhunters became employees, their ancestral cattle became endangered.

There is one very specific place and industry where these cattle persisted. In the logging camps of the Gulf Coast, the use of oxen persisted well into the 20th century, and those oxen were none other than the Pineywoods, descended from those early escaped Andalusian herds back in the 16th century.[5] These logging camps were home to lumberjacks, teamsters, cooks, and operators toiling together alongside the Pineywoods oxen. This area was home to many labor struggles when in the 1890s workers

5 Pitts, Justin B. (2010). An Overview and History of Pineywoods Cattle: The Culture and Families that Shaped the Breed. American Livestock Breed Conservancy

Photo by Max Chan

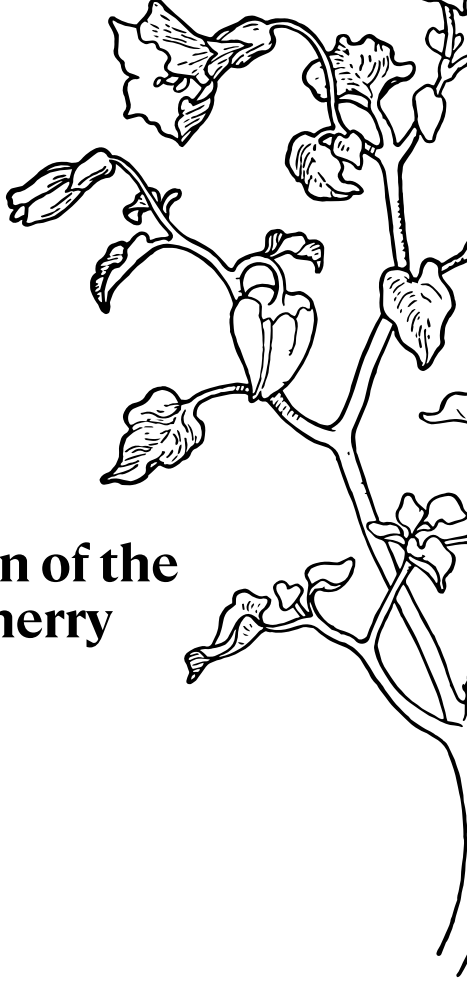
joined the Knights of Labor and struck several times for better pay and conditions. Again, in the 1910s, workers joined none other than the Industrial Workers of the World (IWW), and Pineywoods oxen and lumber workers halted their work to demand what they deserved: better pay, fewer hours, and safer working conditions.[6]

Again, industrial capitalism spelled doom for these cattle, and the people who had stewarded them for the previous four centuries. During the mid-20th century, as the lumber industry mechanized and the South industrialized, small farmers were employed as sharecroppers, factory and mill workers, or moved to larger cities during the Great Migrations. Road development and enclosure of the open range with new fencing laws made raising Southern cattle impossible. This left only those with enough

6 Hall, Covington. Ed. David R. Roediger (1999). Labor Struggles in the Deep South & Other Writings. Charles H. Kerr Press.

land to be able to raise them. Commercial breeds, feedlots, and factory farms replaced the traditional ways of raising cattle: roving herds on common lands and cultural burning. By the 1970s, all of these breeds were on the brink of extinction and, in fact, many strains of each breed had already been lost to modernization and industrialization of foodways.

In the 1980s, the American Livestock Breed Conservancy (now Livestock Conservancy) dedicated a huge amount of resources to track down small isolated communities and families who still had these amazing breeds. Today they are all still on the endangered breeds lists, but with help from groups like Slow Food USA, dedicated generational breeders, and a whole new generation of breeders and enthusiasts, the Cracker, Longhorn, and Pineywoods cattle are still here and making a slow and steady come-back. Their award winning beef and dairy, natural working abilities, resiliency, heat/drought tolerance, and disease/parasite resistance makes these breeds essential to meeting the challenges of a changing climate and a changing world when community self-sufficiency may very well be dependent upon these herds once again. 



In Celebration of the Ground Cherry

Ghamandi

INTRODUCTION

If you've never heard of, seen, nor tasted Ground Cherries (Physalis pruinosa), you're not alone. This plant is not very commonly known because it doesn't integrate into capitalist supply chains easily. You might find Ground Cherries at a farmer's market, but they're so easy to grow you should give them a try at home. My partner and I have been looking for ways to grow more fruit at home, especially given the effect that inflation has had on already high berry prices. Homegrown Ground Cherries have become an important part of our diet over the last few years, and we consider this plant a must-grow. A few plants can produce a surprising amount of fruit and represents a relatively easy way to reduce our reliance on the capitalist food system.

Ground Cherries are not cherries but are related to tomatoes (hence the alternative name Husk Tomatoes). They look like small yellow-orange cherry tomatoes wrapped in a papery husk like that of a tomatillo. How-

ever, they have a complex tart and tropical flavor and are sweeter than tomatoes. The taste is often described as being a cross of a strawberry and pineapple with a hint of vanilla. The plant is related to the Cape Gooseberry and Chinese Lantern and are all in the Physalis genus.

Unlike tomatoes, this plant grows a thick stem and can support itself. It's a short, but wide plant with attractive bell shaped yellow and purple flowers. The stems often have a lovely purple striping pattern, and the leaves are velvety. All parts of the plant except for the ripe fruit are toxic to humans. The fruit grows inside a husk that changes from green to tan and falls to the ground when ripe, hence the plant's name.

After growing Ground Cherries for a few years, I mentioned them to my father and encouraged him to grow them as well. I thought I was making him hip to something he didn't know about. To my surprise, after he looked at the plant, he informed me that he used to eat wild-growing Ground Cherries on the way to school in his native country of Guyana. There they go by the name "Popo." The consensus seems to be that Ground Cherries are native to so-called central america and spread to south america. Colonizers took the plant that our Indigenous siblings cared for to europe, and white settlers brought them to the united states.

Ground Cherries were relatively common in kitchen gardens in the u.s. until the capitalist food economy led to a dramatic decline in home growers about a hundred years ago. The Ground Cherry fell from consciousness and joined Potato Onions as once-popular crops now grown by too few gardeners. That would make 2023 a great year for experimenting and trying one's hand at growing Ground Cherries. This plant is capable of cultivating a culture of abundance and gift-giving within us—the growers.

SELECTION & PLANTING

We have found the varieties we've grown to be indistinguishable. Aunt Molly's is a popular variety. Cossack Pineapple seeds are also widely available. Geltower might be worth trying as well and is supposed to produce larger fruit on a taller plant.

Grow Ground Cherries in an area where you would like volunteers to grow in future years. It's virtually impossible to pick up all the fruit that falls, and the plant is a prolific reseeder. For that reason, we only recommend growing the plant in the so-called Americas. Ground Cherries have been documented to adversely affect native agriculture in other parts of the world. It's also worth noting that this plant is not accessible to all people. It's growth habit requires frequent bending and squatting to harvest the berries.

GROWING

Ground Cherries are grown very much like cherry tomatoes. In most zones, you'll want to start seeds indoors about six weeks before your last frost date. Transplant after the threat of frost has passed. Plants should be grown at least 24 inches apart and in full sun. They grow best in well-draining soil with plenty of added compost. They can also be grown in large pots and raised beds.

The plant's natural growth habit is to grow at least four feet wide. While stakes and caging are not required, using a small tomato cage can encourage a more vertical growth habit and allow you to plant more densely. A cage may allow easier access to the ground below to collect the fallen fruit. A thick layer of wood mulch will prevent fruit from rotting before harvesting and help retain soil moisture. Like tomatoes, watering less frequently but more deeply will encourage healthier roots. A balanced fertilizer will boost the plants' productivity.

ISSUES

Ground Cherries are highly deer resistant. Aphids can attack seedlings, so starting the plants in a protected environment (indoors or using a cloche) would help. Our plants are always affected by flea beetles, which can stunt or kill young plants. Once the plant reaches a certain maturity,

though, it can withstand future flea beetle damage. Keep an eye out for tomato hornworms as well. If it looks like a deer nibbled on a plant, there's probably a hornworm blending in somewhere. Keep in mind if a hornworm looks like it's covered in rice, it has been parasitized by the braconid wasp. It should be relocated away from crops so the beneficial predators can reproduce. We repeatedly grow Ground Cherries in the same bed and noticed slug damage for the first time this year.

HARVESTING, SHARING, & EATING

You might want to gently shake plants before picking up the berries that have fallen. Remember that ripe berries (which are no longer green) are the only edible parts of this plant. You can store uneaten berries in a brown paper bag on a countertop for over a week or in your fridge for longer storage. Leave the Ground Cherries in their husk until you're ready to eat, cook, or freeze them.

A few plants will yield plenty of fruit, and you'll want to share. Just make no assumptions and remind neighbors, friends, and family to peel before eating. One berry can pack an amazing number of seeds, and you can save seeds from the best-looking fruit. I always push a few Ground Cherries into the soil at the end of the season for good measure.

Ground Cherries are commonly eaten fresh, added to salad, oatmeal, and desserts, and made into jam. You'll have a bountiful crop and should have fun experimenting!

Ground Cherry Jam

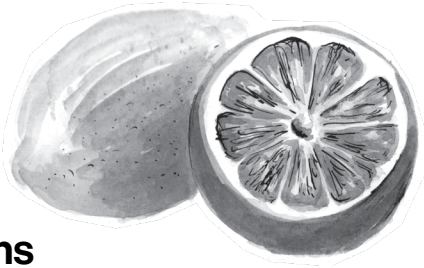
Ingredients

3 cups of husked Ground Cherries

¾ C of sugar (try Sucanat or whole cane sugar if possible)

2 T of lemon juice

1 T of vanilla extract



Directions

1. Add husked Ground Cherries to a saucepan over low heat.

2. Add the lemon juice and cook until the fruits have burst and begin to break down.

3. Add the sugar and vanilla extract, and cook over a medium heat until jam thickens to desired consistency. Stir occasionally.

4. Store in clean glass jars in refrigerator after jam comes to room temperature.

"This maple came down in a winter storm and was bucked up in early january... this round has decided to keep on living. A true testament to how fucking wet the PNW has been this spring?!?'

DIY Air Prune Beds

For Growing Thousands of Trees in a Small Area

Nuts & Bolts Nursery Co-op

Air prune beds are a way to grow hundreds of baby trees from seed in an area as small as 10 square feet, on any type of surface from grass to bare pavement. In just two years, we've grown close to 2,000 trees in 12 air prune beds, spending a total of $400 and sourcing free stuff from some local connections. Air prune beds are an essential DIY technology that can help us begin building an ecological future now, where food forests are growing in every backyard. Here is how to build an air prune bed, how it works, and some pros and cons.

Left: Filling some air prune beds with soil; Above: A fully constructed protective cage for the top of the air prune beds

An air prune bed is basically a planter box with an open top and a wire mesh bottom, lifted off the ground with cinder blocks. It is filled with soil and planted out with stratified tree seeds in early spring. Usually, trees grow long tap roots when sown directly in the ground, but with air prune beds, when the newly planted seeds' roots reach the bottom and find that there is air, they stop growing their taproot and instead focus on building a bushy heartroot system. This makes it easier to transplant the trees because if you break the taproot of a baby tree, it will lead to problem deformities in the tree's structure as it grows, or it could even kill the tree. If sown directly into pots, the taproot will spiral in the bottom and wrap around itself and the trunk, eventually strangling itself. In an air prune bed you can plant up to 50 trees per square foot, depending on soil quality, seed size, and care given. In the fall after their first growing season when they go dormant and lose all their leaves, you can carefully lift the trees out of the box, untangle their roots, give them a good soak in some rainwater, and plant them out into their forever-homes.

DIY Air Prune Beds

Makes 1 bed

Supplies

A bucket or two of stratified tree seeds*

2”x6” boards, total length: 24 feet
- 4 boards @ 4’
- 4 boards @ 2’

2”x2” boards, total length: 24 feet
- 4 boards @ 30”
- 2 boards @ 22”
- 2 boards @ 5”

¼ or ½ inch hardware cloth 4’x18’

24x 3” long screws

~1ft of galvanized steel pipe strapping (metal tape with holes) or 4x 4” straight brackets

4 Cinderblocks

Wire cutters

Staple gun

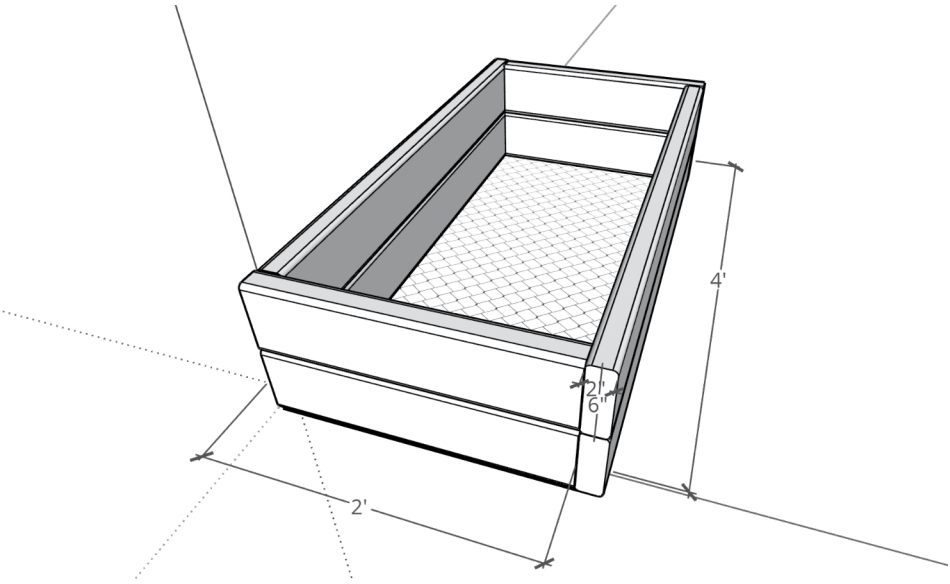
Drill & driver

Circular saw

Tape measure

Work gloves

**Stratifying seeds is simply overwintering your seeds. Most tree seeds need to go through a winter underground before they sprout. You can simulate this in the fridge, in a plastic bag and moist paper towel. We just like to put our seeds in a bucket that has drainage holes with moist sawdust and bury them underground in late fall, before the ground freezes!*

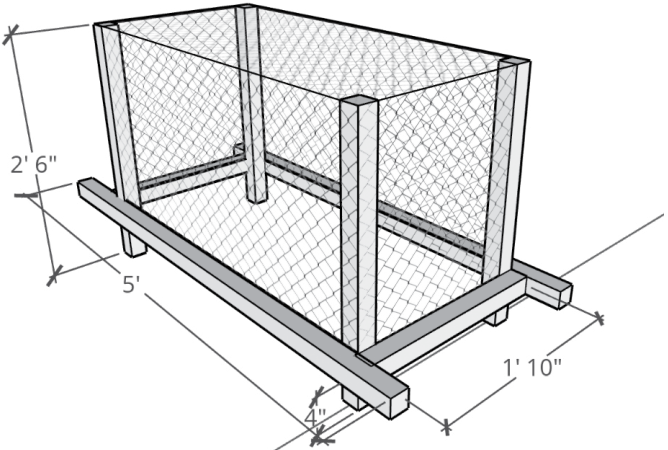


Air prune bed

1. Cut the 2x6 boards to length. Assemble two 4' and two 2' pieces into a box, overlapping the edges as shown in the schematic. Repeat with remaining 2x6, and stack fasten the two boxes together and fasten with brackets or pipe strapping.

2. Cut a piece of hardware cloth about 2' 6" long and staple it to the bottom of the box, with the edges wrapping up the box a bit for security.

3. In these next few steps, you will be making the lid for your air prune bed (schematic on follow page) that you just made above. This lid is detachable so when you need to weed your box or check on your baby trees you can lift it off, and then put it back on to protect the baby trees from critters. First, cut the 2x2 boards to length. Screw the 22" boards in between the 5 foot ones. The distance between the two 22" boards should be just a little smaller than the distance between the short sides of the box, i.e. 43 ½". You should now have something that looks like a rectangle with four handles extending



Lid for air prune bed

from the long edges.

4. Place the 30" boards upright in the inside corners of the rectangle, perpendicular to the plane of the rectangle you just made in step 3. Screw them in place, with 4" extending below the plane. Make sure that these 4" extensions sit nicely inside the corners of your box from step 2. You want it to be a good fit so that when you put the lid on, it fits snugly on the air prune bed and there are no holes for critters to get through.

5. In this next step you are just going to wrap a piece of hardware cloth around the lid frame you just made and secure it to each upright post with your staple gun. Cut a piece of hardware cloth about 13' long. This will be stapled to the posts jutting out of the rectangular base of the lid. Secure the hardware cloth to any first post and then move it to the next post. Staple the cloth to the posts and fold it over and staple it to the rectangular base. (It helps to cut the hardware cloth at the corners so you get a nice tight fold on each post and onto the base.) Fold around each post and repeat until the lid is fully covered. The top will be open at this point. Next simply fold the two long edges towards each other and secure with zip-ties, wire, or string. If that doesn't make

sense just cover the lid however you see best. By the end, it should have no holes in it for critters to get though and should fit snug onto your air prune bed.

6. Finally, make sure the bed is up off the ground on two cinderblocks per side, and has some good air flow underneath (you may want to mulch heavily underneath the spot where you'll be putting them so grass and weeds don't grow underneath and into your box). Then fill the bed up with soil to about an inch or two below the top of the box. Then plant your stratified seeds inside, about an inch underneath the soil depending on the plant. The spacing will be very close but you can easily untangle them in the fall.

7. Water regularly, watch for weeds, and after the baby trees lose their leaves they are ready to dig out and plant in the fall. If you want to save them until the spring, take a shipping tote with an open bottom from behind any big store like a local corporate pharmacy (shipping totes are those boxes with the interlocking top, some have mesh bottoms that let air in). Put the trees in the tote with soil. Bury the tote, with the trees in the ground, so the ground is right at the top of the tote. This will over winter the trees and stop their roots from freezing. In spring, after the danger of the frost is over, you can dig out the trees and distribute them. They will look like sticks with long root systems. But they are truly magical sticks.

This design is super moddable so if different variations work better for you, you should experiment, hack and modify to meet your needs. If you get this system down right, the biggest problem you might have is what to do with all the trees that you grow, which I think is a good problem to have. Good luck growing and planting! Shoutout to our friend Sean from Edible Acres nursery, who taught us how to build air prune beds, and has some videos online of how to build them. If you have any questions on building them or just about growing a bunch of trees, you can e-mail us at nutsandboltsnursery@gmail.com.

Les Jardins des Vertus

Anonymous

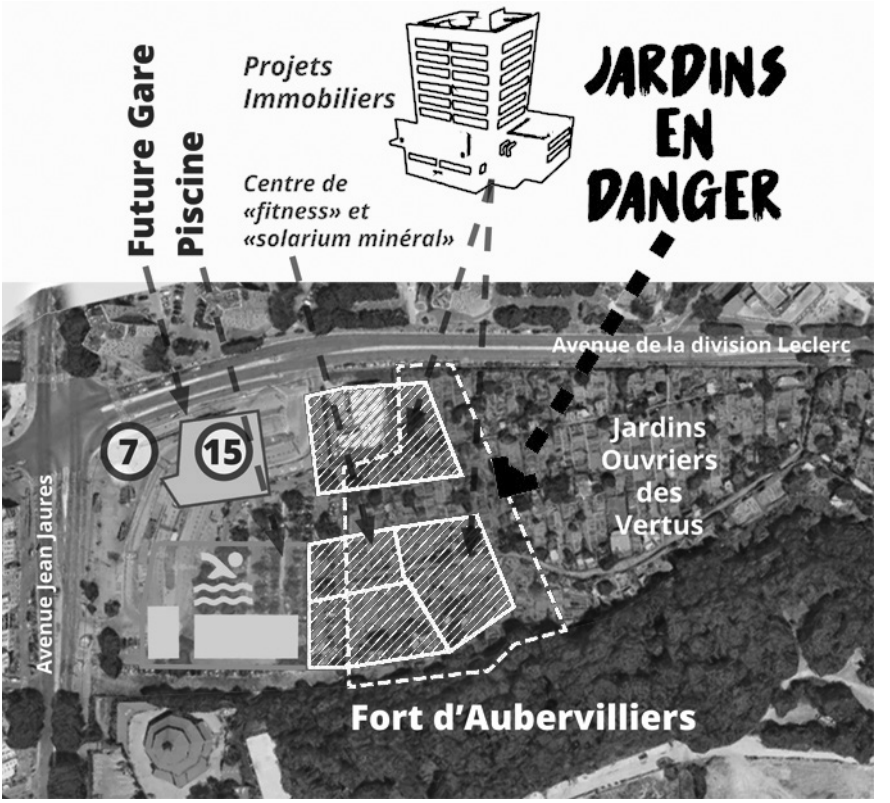
Every human space narrates and is narrated within the boundaries of a precise imaginary, built on memories and impressions, sounds and colors. The northern extremity of the Paris Métro Line 7 has entered the common imagination as a gateway to la banlieue profonde ("deep suburb"), to scenes and images taken from the film La Haine and the stereotype of the Paris cité.

One emerges from the Métro 7 station Fort d'Aubervilliers upon a big parking lot near the center of the city of Aubervilliers—the poorest in France—which is characterized by a large disproportion between the number of inhabitants and the number of trees and a general lack of public green spaces.

At the beginning of Summer 2020, Paris Amenagement (the city's urban planning organization) revealed a new "renewal effort" supported by Paris' Town Hall and by the municipal government of Aubervilliers. The organization publicly announced that a part of the workers' gardens next to the metro station would have to be expropriated in order to build one of the training swimming pools for the Olympic Games to be hosted in Paris in 2024. The gardens, known as Les Jardins des Vertus ("the gardens of virtues"), are a green strip managed by an association that assigns plots of land to people who formally make a request, thus enabling them to grow their own orchards amid the greyness of Aubervilliers. Moreover, the green area represents an important asset to fight food desertification in an at-risk neighborhood.

With the green spaces of Aubervilliers already being so drastically diminished, the reduction of the Jardins des Vertus wouldn't be justified by the construction of the swimming pool. In addition, in this case it's important to debunk the myth of "renewal" by highlighting that an olympic-size swimming pool would need further investment and modification

Photo by Anne Paq



in order to become useful or accessible to the local population. The government's nonsensical initial investment can only justify itself by attracting private investors to propose complementary projects. For this reason, while the 50 meter pool itself could have been built only on the existing parking area, plans demand a part of the gardens have to be destroyed in order to build an adjoining solarium, an uneccessary and gentrifying tinsel.

Paris Amenagement obtained the collaboration of the gardens' association with the promise of balancing the loss by giving it part of the expropriated land, even though this parcel already lay within the perimeter of the jardins.

Some of the gardeners, however, decided to oppose the decision by founding a parallel and autonomous collective that began to attend the public assemblies, gradually incorporating members of other militant associations. A militant network was built among the collective, the Bri-

gades de Solidarité Populaire, Saccage 2024, and the experience attracted the interest of other neighboring movements such as XR (Extinction Rebellion) Pantin.

Starting from the public visits organized by the resistance gardeners to make the situation of the Jardins known in all Aubervilliers, on the April 17, 2021 a bigger demonstration brought together around 1,500 people who decided to enter the parcels to hold a picnic. After a few days, some members of the collective started spending the night on the abandoned plots, thus officially declaring the occupation on May 30. A straw wall was built along the perimeter in order to separate the occupation and the parking lot, as a way of declaring the role of the occupation as a protection against the menace of "renewal."

In the occupied area a free shop and a library were built, as well as some huts. A common kitchen was organized in order to make meals from recup' aliments (food recuperation).

Until the expulsion that took place on the September 2, the occupation became a public forum. Every week, conferences and cultural activities open to the whole population were organized. Moreover, thanks to collaborations with some teachers, classes were taken on school trips to the gardens. The kids learned how to cultivate and grow plants, and the activitsts organized gardening sessions with them.

While waiting for visits from Zapatista contacts, exchanges with Mexican activists were particularly frequent and fertile. The occupation was visited by activists from Germany and Switzerland, thus becoming an important point of reference for exchange and debate for the ecologist milieu. From May to September, at least 300 people visited from afar, even if some of them only stayed for two or three weeks. Despite the difficulty of accessing the area (which had to be entered through a closed gate, thus making necessary the continuous presence of someone who could open it to visitors) ties with the neighborhood were slowly created—an experience that risked remaining exclusive to the activists also started to interest the population of the town itself.

These ties represent the fundamental legacy of the political experience of the gardens. As stated by G., a supportive neighbor, the fight wasn't "an island." Ideological and political positions coexisted with the territorial

dimension of the cause, thus mitigating the frequent narrative of ZADs ("zones to defend") and squats as pure instruments of radical white activism.[1]

The act of gardening as a resistance practice remained a powerful metaphor of intersectionality.

G. continues: "I didn't go there because I was an ecolo (environmentalist) but because it was an urban space that was about to get lost, and it was a space that served a precise social class. The real effort wasn't so much to stay in the gardens and to keep growing plants in there. The real issue was to make them truly public and truly common, since before the jardins were run by an association that could decide who could grow and what they could grow."

This effort, made by the resistance gardeners and shared with an intersectional and intergenerational milieu, has been but the beginning of a real path of autonomization for these gardens. Les jardins des vertus are slowly being reappropriated by the people of Aubervilliers, who are themselves more and more aware of their spaces of life.

1 See, e.g., "La ZAD: Another End of the World Is Possible: Learning from 50 Years of Struggle at Notre-Dame-des-Landes," crimethinc.com (2018), for further reference. https://crimethinc.com/2018/04/09/la-zad-another-end-of-the-world-is-possible-learning-from-50-years-of-struggle-at-notre-dame-des-landes

Photo by Anne Paq

"It's December in Massachusetts and my palm trees are still on the deck, lol"

"Two weeks away from Christmas and there's still moths flying around in Brunswick, ME"

"I'm in NYC. Crocuses are coming up in December and I just ate a handful of strawberries..."

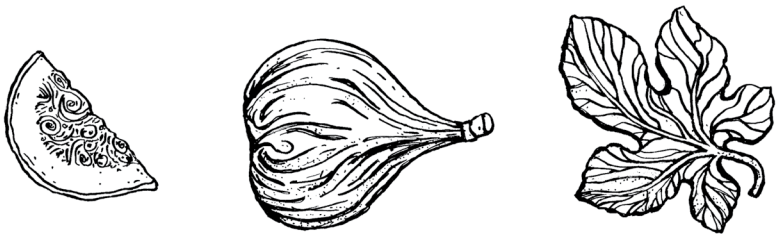


Fig Harvest and Preserves

Ariety

Urban fig foraging season in New Orleans is a strange and solitary time of year. The city is quiet and slow, humming with heat. I see hardly anyone for hours as I bike around looking for fig trees in yards and along streets full of summer vegetation that swims in front of my eyes like a mirage -- cool green banana, pride of Barbados, orange cosmos and Mexican sunflowers burning like suns, crepe myrtle, magenta bougainvillea. Fruiting figs, so ancient and decadent, are part of this extreme garden.

Last year, the figs in my neighborhood were ready the first weeks of July. This year, I picked all my figs the last two weeks of June. A two week long dry heat wave of 99 degree days at the beginning of June seemed to ripen the figs prematurely, and in two weekends I picked 10 pounds of figs. Rain came after that and it was over for a while -- what fruit had been almost ripe rotted on the tree. The figs were delicious, very sweet but maybe not fully figgy, and my jam turned out lighter in color that the previous year.

Collecting and preserving figs is the number one foraging harvest I take the most seriously -- the window of bounty can be small, but the bounty is huge if you have 5-10 good trees on your map. The expensive imported figs you can get at hole foods can't compete with ripe Louisiana figs, and making your own preserves with free fruit means you can share a delicious shelf -stable product with friends and family all year.

Yield: ~15 half pint jars

Note: Figs are not acidic enough on their own to be hot water bath canned safely. I follow the USDA recommendation of adding 1 tablespoon of lemon or lime juice per pint or 1/4 cup lemon or lime juice per 5 pounds of fruit. The National Center for Home Food Preservation (nchfp.uga.edu) is the resource I consult for processing time and how to water bath can preserves properly.

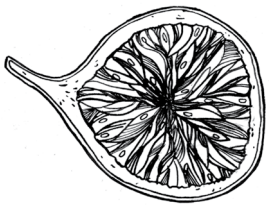
Ingredients

10 lbs figs

4 to 4 1/2 cups sugar

1/2 cup lime juice

De-stem figs.



Recipe

Cook figs and sugar together for 1 to 2 hours until thickened to desired texture — this recipe doesn't use pectin so cooking it down is what thickens it into jam.

Add the lime juice at the end.

Hot water bath can for 5 minutes processing time in the boiling water.

The National Center for Home Food Preservation (nchfp.uga.edu) is the resource I consult for processing time and how to water bath can preserves properly.

Recipe makes approximately 15 half pint jars of preserves. Sugar amounts can be adjusted based on preference and sweetness of figs.

"In Mississippi we had a bunch of chestnuts stratify in a bed in October, germinate in mid-December only to be killed by the bomb cyclone around the solstice."

Watermelon Solidarity

On reclaiming, resistance, and responsibility

Sean
Gentle Dispositions Nursery

CRACKED WATERMELON

Around 1890, Charles Ethan Porter painted a still life of a watermelon, one of two paintings of the fruit the African American artist is known to have produced. The painting shows a deep green watermelon cracked apart into large chunks, revealing an inner world of reds and pinks dotted by luminous black seeds. Some of the pieces appear partially eaten.

Porter painted Untitled (Cracked Watermelon) when Jim Crow apartheid had just about finished dismantling the last vestiges of Reconstruction, robbing African Americans of the few material gains made during the period. The racist trope of watermelon-crazed African Americans had been circulating for over two decades by this point, and there's no doubt

Porter was aware of it. Porter's reclamation, his reverent watermelon, defied the stereotype and the society that birthed it.

In William R. Black's article "How Watermelons Became Black" he explains:

Freedpeople used watermelons to enact and celebrate their freedom, especially their newfound property rights. This provoked a backlash among white Americans, who then made the fruit a symbol of African Americans' supposed uncleanliness, childishness, idleness, and unfitness for the public square.[1]

Even prior to emancipation, for enslaved African Americans freedom and watermelons were intimately linked. Laborers would weigh down cotton baskets with a hidden melon to meet quota and sell their garden melons to purchase themselves out of slavery. In the early 1860s, during the first years of the Civil War, the Sea Islands of South Carolina served as ground zero for an experiment in land redistribution, self-determination, and multiracial democracy. Here, watermelons factored significantly in African American attempts to avoid participation in the novel capitalist economy. As opposed to fulfilling Northern capitalists' paternalistic ideas for how the post-slavery economy would function, African Americans wanted to "operate a sustainable subsistence economy" outside of capital's reach.[2] The growing and selling of watermelons was instrumental to that alternative system. Summer's watermelon harvest was also accompanied by music and dance—occurrences that enacted vital moments of community building and care.

In response, white supremacists fired back a barrage of depictions of watermelon-eating African Americans that appeared in art, performance, and the press throughout the country. They often showed groups of African Americans sloppily and absent mindedly eating watermelons. Some showed them stealing the fruit, insinuating a lack of self-control. These depictions served not only to ridicule, but also to reinforce white society's codes of conduct. The trope was so pervasive in popular culture that

1 William Black, "How Watermelons Became Black." Journal of the Civil War Era, Vol. 8, No. 1 (March 2018), pp. 64-86.

2 Akiko Ochiai, "The Port Royal Experiment Revisited: Northern Visions of Reconstruction and the Land Question." The New England Quarterly, Vol. 74, No. 1 (Mar., 2001), pp. 94-117.

many African Americans stopped associating themselves with the fruit and avoided being pictured with it. In time the overt caricature diminished in popular culture, but the association never disappeared from public consciousness and remains present today.

Damaging as the trope was and is, it did not stop African American farmers from growing, selling, and importantly, enjoying and sharing the fruit. This context makes Porter's painting all the more revealing and powerful today. It is also a fruit with deep heritage and history—much of which is grounded in Africa and the Near East. Here too we find watermelons used as means of resistance and reclamation, with Palestinians making watermelons a part of their struggle for self-determination.

SAVED AND WAVED WATERMELON

The known history of the cultivated sweet watermelon (Citrullus lanatus) begins in the Kordofan region of Sudan around 5,000 years ago. From there, the fruit moved through Egypt, into the Mediterranean, and then into Asia in the 600 and 700s. It was held in esteem for its medicinal properties, and in particular as a hedge against dehydration. The watermelon (which by then had likely been improved into countless varieties, named and unnamed) then made its way to the western hemisphere in the sixteenth century via enslaved Africans aboard Spanish colonists' ships. Indigenous peoples subsequently grew watermelons on their land, and the fruit was grown in the gardens of the enslaved on the plantations and farmsteads of the colonies.

As such, while the cultivation of watermelons in the so-called United States is relatively recent, in the Near East watermelons have been a culinary and cultural staple for thousands of years. Yet here too the watermelon carried negative associations. William Black's article notes that for eighteenth and nineteenth century Europeans, the watermelon was considered a "poor Arab's feast." Depictions of Mediterranean and Near East cities' streets littered with melon rinds accompanied Orientalist associations between the fruit and the unrefined laboring class.

Fast forward to 1949 and Israel's occupation of Palestine. The Nakba produced a cascade of tragedies, including the systematic undermining of Palestinian agriculture. Since then, "Israel has drowned the Palestinian

agricultural sector with chemical pesticides, herbicides, and fertilizers. Likewise, it has advocated for a system of mono cropping that has left farmers vulnerable to middlemen who dictate prices and crop varieties."[3] The loss of heritage crop diversity has only accelerated in passing decades, leaving Palestinian agriculture all the more precarious and vulnerable to the pressures of occupation and climate change.

The Jadu'i watermelon has long been grown in Palestine. This variety was known for its large size and distinctive tan and black seeds. The curfews and restricted access to cropland that accompanied the First Intifada, however, nearly caused the Jadu'i to be lost. Vivien Sansour, founder of the Palestine Heirloom Seed Library, was able to track down some of the last known Jadu'i seeds and distributed them for planting. Unfortunately, genetic bottlenecking has resulted in smaller sized fruits than what was historically grown. Sansour has since shared the seed and its story with others outside of Palestine. In 2022, the Experimental Farm Network offered small packets of Jadu'i seeds, encouraging people to grow out a population that produces large fruit, helping to restore its legacy.

Such watermelon restoration in Palestine is an act of resistance that accompanies demands for self-determination. In this spirit, the watermelon has recently become an emblem for the Palestinian people, who emblazoned watermelons on banners and flags used during the uprising of 2021. The history of watermelon's use in demonstrations begins after the Arab-Israeli War of 1967, when Israel banned the display of the Palestinian flag. It is reported that the pieces of watermelon—with its red, green, and black colors that mirrored those of the Palestinian flag—were then used as a subtle display of resistance to the rule. Later, artists in the 1980s attempted to display paintings of the Palestinian flag in a gallery, but military forces shut the show down and arrested the artists. One of the artists, Issam Badr, asked: "'Well if I paint a flower with these colours, what will you do?" And the officer responded: "It would be confiscated Even if you do a watermelon it will be confiscated.'"[4]

3 Vivien Sansour and Alaa Tartir. "Palestinian Farmers: A Last Stronghold of Resistance." Al-Shabaka: The Palestinian Policy Network. July 1, 2014.

4 Alexandra Chaves, "How the watermelon became a symbol of Palestinian resistance." The National. May 30, 2021. https://www.thenationalnews.com/arts/how-the-watermelon-became-a-symbol-of-palestinian-resistance-1.1230806

Around two decades later, in 2007, another artist, Khaled Hourani, designed 'Watermelon Flag' — a minimal, slightly tilted, and striking depiction of a slice of watermelon on a bright white background. With the piece, Hourani intended to "commemorate the legacy of resistance to the prohibition of the Palestinian flag."[5] After it was featured in the Subjective Atlas of Palestine project, the symbol took on new life. During the 2021 Palestinian uprisings, the flag, along with the watermelon itself, became a symbol of resistance that was seen around the world.

THE PEOPLE'S WATERMELON

This history and context make clear the liberatory potential of a "watermelon solidarity." What might a watermelon solidary look like? I think that it is made up of equal parts collective action and collective joy, grounded in communalism and cooperation. We can look to the Indian Springs Cooperative, founded 1964. One of the more successful agricultural cooperatives, it was established by African American farmers demanding better pay for their watermelons. One of its founders, Ben Burkett, has long practiced watermelon solidarity. Not only is he active with La Via Campesina, but Burkett also helps with a local elementary school's yearly Watermelon Day event. The Experimental Farm Network's offering of the Jadu'i seed is an additional example. On the EFN website, the closing line of the seed description reads "when you order these seeds, know that they come with a heavy responsibility."

This summer we grew the Jadu'i watermelon in our garden in northeastern Georgia. Despite a genetic heritage rooted halfway across the Earth, the Jadu'i produced better than other varieties we planted, gifting us numerous tasty green globes. In the end though, we wound up with just a few big ones that are still not likely their historic expression. But we will try next year again with the seeds we saved from the fruits, joining others to raise awareness and a good crop. In the meantime, we have had fun eating these watermelons with our loved ones. In fact, it is my experience that the communal eating of watermelon frequently elicits joy, perhaps more than any other fruit. And despite the introduction of personal-sized types in recent years, watermelons remain a predominantly large fruit best cracked open and enjoyed with other people. Next year, when we

5 "Watermelon Flag." https://disarmingdesign.com/product/watermelon-flag/

plant these under weirding skies, we will consider it an act of solidarity, caretaking, and jubilee.

Photo courtesy of the Experimental Farm Network

"Hello from VT (no power since 8:45AM yesterday). I've seen snow, I've seen rain in December, I've seen high winds, but never all of them in a 12 hour span. Oh plus the 60°-9° snap freeze. Totally wild."

"Upstate [NY] has made a noticeable transition from three wintry months that are consistently frozen to cold, intermittently freezing and thawing temps in the 30s and rain. Big snowstorms are still possible but now are the exception in the regime of rain and occasional flurries."

Photo by Laura Carl

Quercus et Castanea

Evolving peasant ecologies during and after Rome

Thomas Humphrey

This little basket was woven by my hands with twigs: believe me, dears, mother and kind sister; and what the country bears, I offer here as rustic gifts, sweet chestnuts, which the tree gave to the fields.

Venantius Fortunatus,
Letter to Agnes and Radegund, 567 CE.

Shopping, for an imperial Roman urbanite, was easy. If you needed supplies, you could head to the market. If you didn't have the time to cook or didn't have a kitchen to cook in, you could stop for fast food at the corner thermopolium. There, you could have a thoroughly globalized meal: bread from Egyptian grain, fish-sauce from Adriatic anchovies, sausage from Lucanian pigs.

Pork was second only to bread as the most accessible food to a poor Roman (fourth century writer Amianus Marcellanus scornfully dubbed

them the *Porclaca*, the pork eaters). Hundreds of thousands of pounds of pork was shipped across the empire to feed the soldiers, markets and imperial doles.

Rather than the grain-based feed used for pigs today, Roman swine were fed on pannage—that is, they were herded into oak forests and fed on the yearly masting of acorns, along with whatever else the famously unpicky eaters could scavenge. That is not to say that this was a system somehow in harmony with nature, but it is remarkable that even in the export and profit based agricultural system of Imperial Rome, forest pasturing (silvopasture) flourished.

But this was just one piece of the complex web of exchange that crisscrossed the Mediterranean in those days. Just as is the case in your own modern supermarket, it takes a whole world of farms to keep the shelves stocked.

And over the last centuries of the Empire, that world slowly fell apart. The center could not hold, and its dominions fractured. Mediterranean trade networks shifted to regional ones, which gave way to local exchange and aspirational autarky.

In the 3rd century CE, the city of Rome held over a million people. By the 6th century, there were less than a hundred thousand. In our own period of climate collapse, where local food security becomes more important, and must be built in disturbed human environments, this period has much to teach us.

Pork did not disappear in the collapse. The stall-feeding of pigs, used to fatten them for temple slaughter, ended due to both caloric inefficiency

and a dearth of temples in a Christianizing world. Pigs on average became smaller and scrappier in the face of famine and scarcity. The breed that remained was a hairy variety of European "landrace," a cross between imported foreign domesticates and European wild boars, better adapted to native conditions. All throughout the Middle Ages, pigs straddled the line between wild and domestic animals, with the more feral ones wandering the vast oak forests co-formed by the human-pig alliance.

But in much of Italy, even as woodlands encroached on urban and suburban environs, the practice of oak pannage decreased in prominence. Pigs were the most efficient transformers of waste into calories, and thus always factored in local agroecologies (especially around cities), but they were less likely to be the focus of a given system. It might be efficient to raise a meat-only animal when it could be reliably sold for profit, but when you are simply trying to provide for the needs of a household, you can do better. Efficiency isn't the issue, but variety. Pigs might produce more meat, but for a society on the edge of subsistence, meat isn't the priority. Among European livestock, pigs are the only ones that do not produce secondary products. Between pigs and sheep, who provide wool and dairy products during their lifetimes and meat upon their death, the choice is clear.

This switch to sheep was also deeply influenced by a major transformation in contemporary Italian forests, a coevolution of humankind and chestnutkind.

Oak forests with swine pannage seem to have peaked at the same time as the Roman Empire did. Large swaths of the reforestation that occurred in post-imperial Italy were human planted chestnut forests. Chestnuts were not native to the region, but with just the right kind of encouragement, they thrived in the Mediterranean climate.

Roman poets and agronomists in the imperial period looked upon chestnut eaters as delightfully backwards rustics. When starvation is around the corner, and old manorial villas are torn down into peasant farming complexes, those associations are gone. People began to engage with the chestnut tree, to understand its conditions, to learn the complex and delicate art of grafting its branches.

And in that time, they developed a taste for the nut that was once, like the bitter acorn, left to the pigs. If pigs were allowed to forage in the chestnut forests, they would simply eat all the nuts that were now so treasured. Sheep, on the other hand, focused on the diverse grasses and fresh forest shoots, creating another stream of calories and textile fiber, while also cutting back on competition for the chestnuts.

A chestnut tree has many innate benefits to those who share space with it, but when planted in a managed forest, their manifold utility can be multiplied many times over. They fostered fertile ground for mushrooms, their blossoms were a favorite of kept bees, and herbs and berries grew plentifully in the undergrowth. To these uses were added lumber, fodder, and raw materials for rope and tar, the building blocks of every household which could no longer be purchased in the market.

Sheep pushed this utility even further, fertilizing the ground, grazing back unwanted growth, and contributing their own secondary products and meat.

Then came industrialization.

Peasants became workers, alienated from the land and its fruits, from the means of production and from produce itself. All the necessities the forest once supplied were now bought at the supermarket or company store. The chestnut woods were ravaged by diseases, the inevitable reality of global trade.

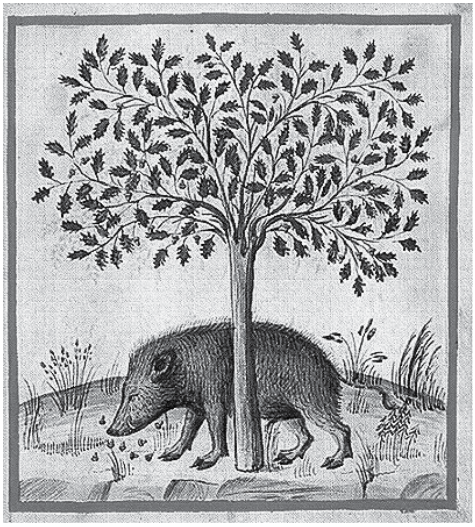
Significant numbers of Italian chestnuts are now exported across Europe

and the globe, while others are drivers of an extractive tourist economy, drawing gawkers to the dead remnants of a peasant foodway that now barely exists. Meanwhile, large quantities are now imported from Turkey and China, to fill the domestic demand undermined by the global prestige of Italian *castagnum*.

Meanwhile, many of the former peasantry became like those Roman urbanites, the *porclaca* of the city, divorced from any connection with the non-human world, totally dependent on a complex imperial structure far beyond their imagining. They buy their chestnuts at the supermarket.

But let us recall, too, that it was the *porclaca*, the alienated subject of empire, who planted the chestnut forest in the first place. And imperium is once again teetering on the edge of its ecological limits.

Let us be, then, like those peasants, workers returning to the earth, who took up the old plantations and turned them into forest. Let us, like them, reoccupy the villas and the mansions, and turn their courtyards into gathering places once again.



How to Graft Fruit Trees

J. Mills

Grafting is a way to propagate plants without using flowers, fruits or seeds. It involves attaching a piece of one plant (the fruiting part) to another plant (the rooting part). Grafting allows us to preserve valued trees, create orchards with many identical trees, convert ornamentals into trees that produce tasty fruits, or make one tree yield multiple varieties of fruit.

Equipment and materials for the whip and tongue graft

Rootstock. This plant will become the root system of your tree. Rootstocks differ in disease resistance, anchorage and vigor. Some rootstocks make small, short-lived trees that bear quickly but need support, whereas other varieties produce long-lived, large, free-standing trees that take longer to bear fruit. Available from nurseries or you can propagate your own. Must be dormant at the time of grafting.

Cuttings or scions. The entire shoot system of the tree will grow from the scion. Ideally, cuttings are taken from vigorous, disease-free, 1-year old shoots, about pencil diameter. These are often found at branch tips. An 8-inch cutting works for two or three grafts. Cuttings for spring grafts are taken in late winter when the tree is dormant, sealed in a plastic bag and stored in a fridge. You can gather cuttings yourself, buy scions from a scion exchange or nursery, or get them at a scion swap (often free!). Generally, grafting works best using rootstock and cuttings of the same or closely related species, e.g., apple (Malus spp.) scion on apple rootstock, pear (Pyrus spp.) scion on pear rootstock.

Knife. Utility knife with a fresh blade will work. A grafting knife (single bevel) is better and worth getting if you intend to graft more than a few trees. The knife should be razor sharp.

Hand pruner.

Rubber bands. Cut into strips approximately 3 inches long, used to bind grafts.

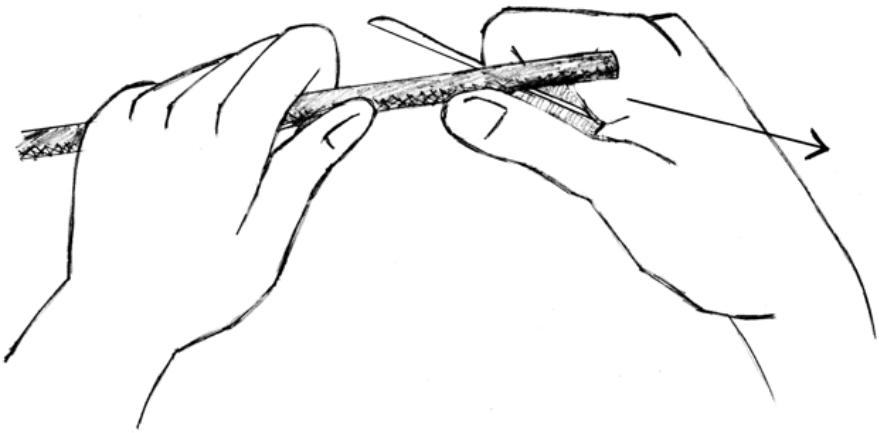
Tape or sealant. To minimize moisture loss. Parafilm is effective, easy to use and will loosen on its own as the tree grows. Freezer or electrical tape can work but will need to be cut away as the tree grows. Brush-on grafting compounds work too.

Weatherproof labels. Most importantly, indicate scion name. You may also wish to record rootstock type and year of graft.

Method: whip and tongue graft

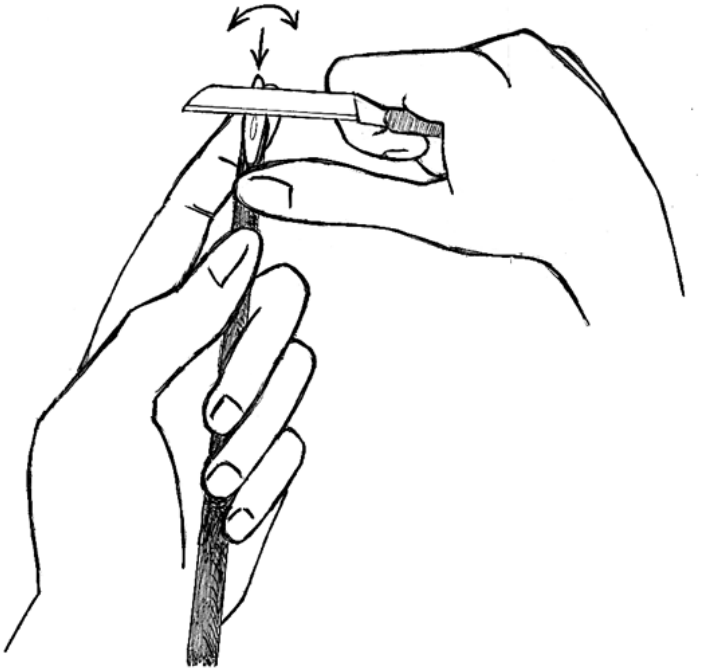
Commonly used with apple and pear, this graft is done in spring, starting about 3 weeks before the last frost. It's a good idea to practice your cuts with unneeded, fresh cuttings (dry wood cuts differently). The directions are for right-handed people; reverse if you are left-handed.

1. Using a pruner, trim the top off a rootstock approximately a handwidth above where roots emerge.



2. Whip cut. The goal is to create a flat, angled plane, 1 to 2 inches long, near the top of the rootstock. Hold the rootstock in your left hand, near the cut tip, with several inches exposed by the thumb. The rootstock should point toward your right elbow. Hold the knife in your right hand with the blade edge facing your right hand. Set the knife on top of the rootstock. Extend your right thumb and place it below the rootstock, so the rootstock is sandwiched between right thumb and blade. Cut at an angle

through the rootstock. The right thumb slides along the lower side of the rootstock as you cut. All the motion is in your right shoulder. Thumb and blade travel together, wrist steady, as you move your right hand and elbow to the right. You do not need to make this cut in a single stroke—you can begin by taking off a little wood, then more with subsequent cuts.



3. Tongue cut. Hold the rootstock in front of you, pointing up. Your left index finger should go near the tip of the rootstock, along the back side. The blade edge should be perpendicular to the rootstock. Start the tongue cut about 1/3 of the way from the upper end of the oval-shaped plane you created with the whip cut. To reduce the risk of cutting yourself, you must brace the back side of the rootstock with your left index finger. You can also wear a glove on your left hand. Push the blade into the rootstock, parallel to its long axis. Slowly rock the blade left and right as you cut into the wood, about ¾ of an inch. The rootstock is ready to receive the scion.

4. Identify the bottom end of the scion (buds point up) and make whip and tongue cuts, just as you did with the rootstock. The angle of the whip cut should be about the same as on the rootstock. The length of the tongue cut should be about the same as on the rootstock.

5. Fit the scion onto rootstock using the tongue cuts, increasing the depth of the cuts if necessary. The pieces should fit together snugly. Most importantly, adjust the pieces to line up as much bark as possible. The inner bark includes the vascular cambium—cells that will generate new wood and bark. The cambia must be aligned so the two plants can form a working bond. Often, rootstock and scion differ in diameter, so it's not possible to align the bark on both sides of the graft. Choose the side with the most contact between the pieces.

6. Trim the top end of the scion. Two buds are sufficient.

7. Double check the alignment and fit of rootstock and scion. To ensure a strong connection between scion and rootstock, tightly wrap a rubber strip around the graft site. Press the strip against the rootstock below the graft site, pull on the strip, wrap it around, onto itself and secure the end of the strip. Continue tightly winding the strip around the stem to bind the two pieces together. Secure the end of the rubber strip near the top of the graft site by placing your finger on the scion, wrapping the strip over your fingertip, then sliding the strip onto itself.

8. To reduce moisture loss at the graft site, stretch and wrap a piece of Parafilm over the graft site. Wrap a small piece of Parafilm over the cut tip of the scion as well. No cut tissue should be exposed. Alternatively, you can use tape to cover the cuts, but it will need to be cut in midsummer as the tree grows.

9. Attach a label.

Care of newly grafted trees

1) The roots must never dry out, so cover them with damp newspaper. Gently handle newly grafted trees and put them in a plastic bag or storage bin with a lid. Store in a cool (~40-60 F), dark place. Let the trees sit undisturbed for about two weeks. The cuts you made on the rootstock and scion promote a wound response. While they sit in the dark, the plants are making new cells to seal up the cuts and, in the process, they should fuse together.

2) Newly grafted trees are frost sensitive, especially if the buds are opening. The trees shouldn't be planted until the chance of frost has passed. They can be held in a refrigerator, if necessary, until conditions are favor-

able for planting. Plant at a permanent site or in a nursery bed or pots.

3) Buds should open after a few weeks, at most. You may notice shoots growing from the rootstock, this is normal. After about 6 weeks of growth, when one of the shoots from the scion is most definitely growing, remove all shoots except the strongest shoot from the scion. In time, this shoot will develop into the fruiting part of the tree.

4) If a scion dies but the rootstock is alive, let it grow and graft onto it the following spring.

Some of the many variations in grafting technique

1) Very often, rootstock diameter is greater than scion diameter. In this situation, start with whip and tongue cuts on the scion. Look at the cut end of the scion, then make a shallow whip cut along a side of the rootstock. Expose an area of wood that approximates the area on the scion, then attach the two.

2) Sometimes the scion is very thin, so whip and tongue is impossible. It is possible to graft using whip cuts only, as long as cut areas are approximately equal. Alternatively, shape the end of the scion into a wedge. Cut straight down into the rootstock. Insert the scion wedge into the cleft. Be sure the bark aligns on one side of the graft.

3) Plant your rootstock and let it grow a season before grafting. The rootstock will be well established and enable vigorous growth. Note that grafting becomes a bit more challenging, since you can't manipulate the position of the rootstock.

4) Graft onto a mature tree, also known as "top working." Cut off a branch or the main stem in spring. Grafting onto large stems is often done by making deep vertical cuts in the bark, inserting multiple scions (crown graft), then selecting the strongest shoot.

5) Bud grafting. This involves cutting off a single bud and small amount of nearby tissue and securing it in a pocket or notch cut into the rootstock. Can be used with apple and pear, as well as fruit trees that may not be well suited to whip and tongue, such as Annona spp., Citrus spp., mango, avocado, Prunus spp., Psidium spp.

"No snow in VT mountains"

"No snow for hunting season in upstate NY. This was unheard of when I was a kid. Snow makes it easier to track deer and they tend to move around more when a cold front comes through."

"The weirding here [Georgia] is still having to deal with skeeters during deer season."

How, and Why, to Keep an Almanac of Your Own

Gesture Wildly

Not long after I moved to the neighborhood where I stay in New Orleans, I went to a nearby Italian grocery store to buy bay leaves. When I put the bag on the checkout counter, the old woman at the register glanced at it and began to hector me: "You've got to start paying attention!"

She was right. If I was paying attention, I'd know a half dozen bay trees grow along the nearby streets or offer their handfuls of dark leaves through the bars of mansion fences. If I was paying attention, I wouldn't pay $3 for this plastic package of pale leaf scrap. She gave me directions and sent me on my way.

Being something of a rootless oaf, this experience was familiar. I often wander from place to place—and find I have no idea where I am and suffer the resulting bouts of dislocation.

It's not all my fault. Like most of us, I don't own land and drift about on the rental market and the landlord's whims like a jellyfish on the tide. Like most of us, the dictatorship of property has deprived me of a living outside the money economy, robbed me of the complimentary skills and knowledge, severed me from what we now call nature.

Our times of climate change and ecological collapse demand that we fight our way back through this wall of disconnection. Become "earthbound!" this publication entreats. Come "down to Earth!" pleads Bruno Latour. "Inhabit territories!" urges a popular pamphlet. Establish "re-attachments!" exhorts another. Our survival depends on it.

But how?!

We tend to lionize the small-time farmer who spends years or a lifetime learning a piece of land, watching its cycles, changing and being changed by it. But becoming earthbound need not wait—not for the day we scrape together enough for a down payment, not for industrial collapse, not for anything. We're surrounded by landless people who are attached to the earth, in big and small ways. Some of them never left. Where I come from in rural Montana, you'll meet them heading off into the quasi-commons of the public lands in search of meat, berries, mushrooms, firewood. In South Louisiana, you'll find them at their favorite fishing spots in the swamps and marshes, pulling in sac-au-lait, catfish, redfish, crabs (or commiserating outside the corner store: "Went fishing today. Didn't catch shit.").

We can find our way home to earth, but only through revolt against the dictum of modern, first-world environmentalism that says nature is for looking at. While its industries plundered the earth wholesale, modernism has tried to teach us that we should admire the natural world in an abstract, distant way. The sightseers and wildlife watchers at the overlook wrinkle their noses at those who come huffing up out of the canyon, hefting bloody haunches of meat or bags of mushrooms, their faces lit with barbaric glee. It is crude, we are taught, to take anything for ourselves.

Well, I say to hell with that! The world is for participating in! Whether we start in the metropolis or a wilderness area, all of us can practice moving through our territories with the aim of subsistence. This practice can be an earthbound alternative to the dérive: You might return home not only with new thoughts, new ways of understanding your territory and how things move through it, but with fish, figs, bay leaves! And it need not be passive. You might notice a marginal scrap of land ignored long enough that you feel like digging a mound and planting seminole pumpkins to sprawl among the weeds…

But when you try to do these things for the first time in a new place, you learn just how hard they are. They depend on local knowledges utterly obscure and uninteresting to the dominant culture. You can't look them up on the internet. You learn them only through attention—to the place and its inhabitants. You are of a place, I think, to the degree you pay attention to it, and there is no ceiling to how much attention you can give, to how much you can learn.

Which is why I keep an almanac. Writing in my almanac every week or so is, for me, a sort of ceremony of mindfulness and attention. My almanac is a thick notebook divided into 24 sections—a section for every half month. I write observations and record my various forays through the territory—noting such things as when the service berries are ripe in the mountains of Montana, when the trouts in those mountain streams prefer a may fly, when the sandhill cranes gather and herald the end of summer, when the misbelief fruits ripen in New Orleans, when (and if) the pecans fall, when the night herons return to roost in the live oaks above Esplanade. The notebook sections are long enough that I can add to them each year, filling in the picture of what happens when, noticing the variations, noticing the changes.

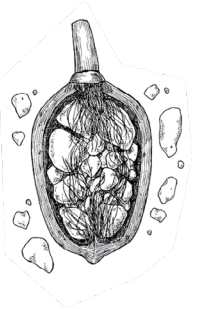
Keeping an almanac is one way I cope with the almost impossible truth that a place is not a place only, but a place passing through time. It's how I locate myself in the ebb and flow of the cycles that give and take life. It's one of the maps I'm using to find my way home.

Photo by Sarah Ristaino

January

DAY OF MONTH	MOON	SUNRISE	SUNSET	SOLAR NOON TIME	SOLAR NOON ANGLE	DAY-LIGHT HOURS
1		6:56am	5:11pm	12:03pm	37°	10h16m
6		6:56am	5:14pm	12:06pm	37°	10h19m
14		6:56am	5:21pm	12:09pm	39°	10h25m
15		6:56am	5:22pm	12:09pm	39°	10h26m
21		6:55am	5:27pm	12:11pm	40°	10h32m
28		6:52am	5:34pm	12:13pm	42°	10h41m
31		6:51am	5:36pm	12:13pm	42°	10h45m

All data specific to New Orleans, LA



TREE OF THE MONTH	Giant Baobab, *Adansonia grandidieri*
JUST FUCKING GOOGLE IT	Arpents, ligas, and acres

JANUARY 28, 1917

17-year-old Carmelita Torres refuses to take a gasoline bath at the US border in El Paso, Texas while trying to enter to work as a maid, setting off the three-day "bath riots." Carmelita would be arrested and disappear, while US immigration authorities would continue to fumigate crossing Mexican workers with DDT, Zyklon B (cyanide), and other insecticides into the 1950s.

Early January, 2021- *South Louisiana marsh*

New moon. *Arrive at 6:45 a.m., just before sunrise, tide going out from a 3 a.m. high to a 2 p.m. low. The fishing is poor—no speckled trout, no bites in my usual holes. Back in the marsh, I see movement on a grassy bank—6 or 7 river otters! They frolic on the bank, play fighting, splashing into the water. Deeper in the marsh, I catch a nice large mouth bass on a live shrimp. Later, I see baitfish scatter and the shadow of something bigger—cast and catch a redfish, too small to keep. Later, a 13" speckled trout.*

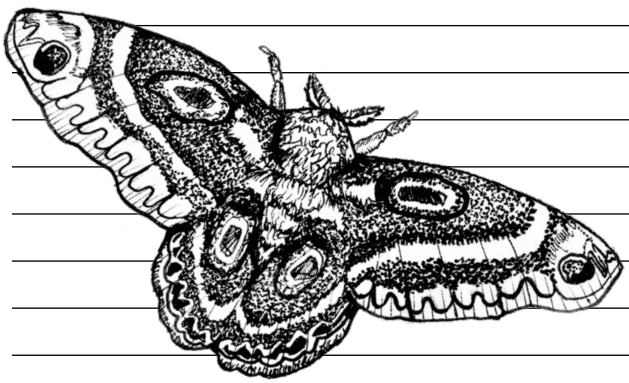
Subsistence Almanac of a Rootless Oaf

Late January, 2022 - *North Louisiana forest*

Moon waxing gibbous. *A light rainstorm in the night ushers in a cold front that drops temps into the mid-30s. From a day that felt like late summer, we wake to a winter morning. Further north, snowstorms throughout Appalachia. On a trail, find what could be thickets of high-bush blueberries—leaves gone red and purple and fallen off but some forming flower buds. Tons of yaupon holly.*

Photo on p86-87 by Sarah Ristaino

Notes



February

DAY OF MONTH	MOON	SUNRISE	SUNSET	SOLAR NOON TIME	SOLAR NOON ANGLE	DAY-LIGHT HOURS
1		6:50am	5:37pm	12:13pm	43°	10h47m
5		6:47am	5:40pm	12:14pm	44°	10h53m
13		6:41am	5:47pm	12:14pm	46°	11h06m
15		6:40am	5:48pm	12:14pm	47°	11h09m
20		6:35am	5:52pm	12:13pm	49°	11h17m
27		6:28am	5:57pm	12:12pm	51°	11h29m
28		6:27am	5:58pm	12:12pm	52°	11h31m

All data specific to New Orleans, LA

TREE OF THE MONTH	Rainbow Eucalyptus, *Eucalyptus deglupta*
JUST FUCKING GOOGLE IT	DeSoto's wild hogs

FEBRUARY 6, 1973

An American Indian Movement (AIM) protest at the Custer County (South Dakota) courthouse over unprosecuted murders of Indians by whites, including AIM member Wesley Bad Heart Bull, is attacked by police. Protesters respond by filling Molotov cocktails and trashcans from a nearby gas station, and set the courthouse, chamber of commerce, and several main street buildings on fire.

Early February, 2021 *- South Louisiana*

Swamp: *Small alligator in the bayou—warm enough to be out of dormancy (brumation)? Paddling back in the twilight, two barred owls call to each other.*

Marsh: *Cold weather came to Louisiana mostly in the second half of January/first half of February, but today is sunny and warm and you can feel the warm weather to come. On shell islands, wild angelica covers the ground between bamboo-like spears of dormant marsh grasses. Catch a big catfish on a dead shrimp cast among the old pylons across the channel.*

Subsistence Almanac of a Rootless Oaf

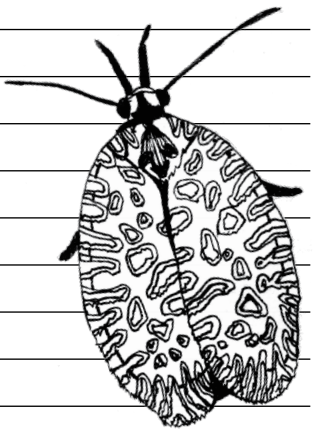
Late February, 2021 *- South Louisiana*

A very cold Mardi Gras, a hard freeze that night—temps into low 20s and teens. Big snow further north. On the farm near Lafayette, we had piled fresh compost/mulch around the bases of bananas and rigged up tarps to protect the avocados. Bananas all died back but roots alive of course. Figs did fine. Avocados all lived. The anole lizards have disappeared. Where do they go?

Late February, 2022 *- South Louisiana*

Days getting warmer, more humid. Misbelief (loquat) starting to fruit: green little fruits yet, but some starting to yellow.

Notes



March

MARCH 1, 1739

A peace treaty is signed between British colonial authorities and the "Windward" Maroons in Jamaica, to end the First Maroon War (1730-1739), as the British recognize they cannot defeat the guerilla fighters. Fifty years later in Haiti, Touissant L'Ouverture is said to have remarked, "in Jamaica there are in the mountains Blacks who have forced the English to make treaties with them. Well, I am black like them, I know how to make war."

	DAY OF MONTH	MOON	SUNRISE	SUNSET	SOLAR NOON TIME	SOLAR NOON ANGLE	DAY-LIGHT HOURS
	1		6:26am	5:59pm	12:12pm	52°	11h33m
	7		6:19am	6:03pm	12:11pm	54°	11h43m
	14		7:11am	7:07pm	1:09pm	57°	11h56m
	15		7:10am	7:08pm	1:09pm	58°	11h58m
EQUINOX	20		7:04am	7:11pm	1:07pm	60°	12h7m
	21		7:03am	7:12pm	1:07pm	60°	12h9m
	28		6:54am	7:16pm	1:05pm	63°	12h21m
All data specific to New Orleans, LA	31		6:51am	7:18pm	1:04pm	64°	12h27m

Women in Rini, Uttarakhand, India mobilize to confront loggers attempting to harvest 2,500 trees auctioned by the local government. When appeals and negotiations fail, the women resort to hugging the trees, or chipko, to prevent the destruction of the forest. After a four-day standoff, the woodcutters retreated, and the chipko movement spread to villages across the region, eventually leading to a 15-year ban on commercial logging in Uttarakhand.

TREE OF THE MONTH Strangler Fig, *Ficus aurea*

JUST FUCKING GOOGLE IT #notbetsy

MARCH 26, 1974

Early March, 2021 - *South Louisiana*

In the marshes south of Abbeville, the gators are out in full force floating, waiting, sprawled motionless in the sun on the muddy banks. At the dock, strung out 5 or 6 crabbing lines—lengths of string with a chicken neck tied to one end. They kept me busy hauling in blue crabs for the next 3 hours.

Cypress trees, red-needled since December, are budding out fresh, light green needles. The figs are budding, unfurling their hand-shaped leaves. The evergreen live oaks are pale with new leaves replacing the last year's.

In the marshes near Ponchartrain, the crabbing is good but the gnats are bad when the breeze dies.

Subsistence Almanac of a Rootless Oaf

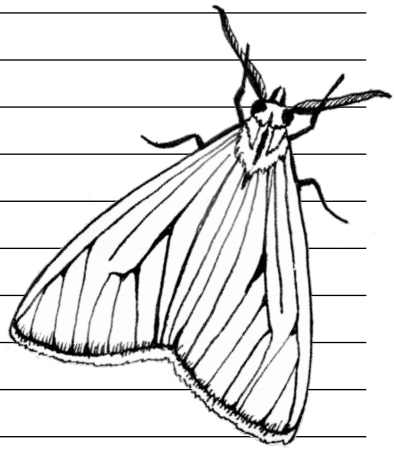
Late March, 2020 - *Central Minnesota*

Heard sandhill cranes and saw a pair in a cornfield just after dawn—first cranes of spring. Small V of large white birds with long necks passes overhead. Swans, I think—probably tundra swans? Many small frogs squashed in the road by some woods—sign of a hatch? Pussy willows budding by the creek.

Late March, 2022 - *South Louisiana*

First alligator of spring! In a roadside bayou where I pulled off to pee.

Notes



April

APRIL 17, 1996 Brazilian military police massacre 21 members of the Movimento dos Trabalhadores Rurais Sem Terra (MST) near the town of Eldorado do Carajás, after a group of 2500 begins an 800 km march to the state capital Belém to attempt to gain legal recognition of their occupation of the idle, forty-thousand hectare Macaxeira ranch. La Via Campesina marks April 17 as International Day of Peasant Struggles annually.

DAY OF MONTH	MOON	SUNRISE	SUNSET	SOLAR NOON TIME	SOLAR NOON ANGLE	DAY-LIGHT HOURS
1		6:49am	7:18pm	1:04pm	64°	12h29m
5		6:45am	7:21pm	1:02pm	66°	12h36m
13		6:35am	7:26pm	1:00pm	69°	12h50m
15		6:33am	7:27pm	1:00pm	70°	12h53m
19		6:29am	7:29pm	12:59pm	71°	13h
27		6:21am	7:34pm	12:57pm	74°	13h15m
30		6:18am	7:36pm	12:57pm	75°	13h18m

All data specific to New Orleans, LA

TREE OF THE MONTH	Dragon Blood Tree, *Dracaena cinnabari*
JUST FUCKING GOOGLE IT	Music for Happy Tomatoes 1975

Early April, 2020 - *Central Minnesota*

Pheasants honking in the brush. Whitetail deer. Hairy woodpeckers (picoides villosus), 1 male and many females. Still thick frost on the ground every morning. By a backwater on the river, find tracks of beaver that waddled ashore to gnaw the pink and green underbark of a nearby tree. Also, tracks of raccoon, muskrat, maybe skunk, and definitely opossum. One by one, the windbreaks around here lighting up with chorus of frogs. Turning over the garden, found two anonymous toads sluggish down in the cold dirt. A. and her dad found a big patch of wild ramps, still young, growing in their usual place in the windbreak. Most of the trees have budded—black walnuts in the pasture, the oaks and elms in the windbreak. Time to harvest the buds of cottonwood to make balm of gilead.

Early April, 2022 - *South Louisiana*

Misbelief (loquats) coming ripe across the city! Trees fulls of orange-gold fruit. Not all trees the same: some fruits bigger, sweeter, juicier than others. We harvest a couple gallons, which comes out to about 16 cups pitted, and reduced to 7 half-pints of misbelief jam.

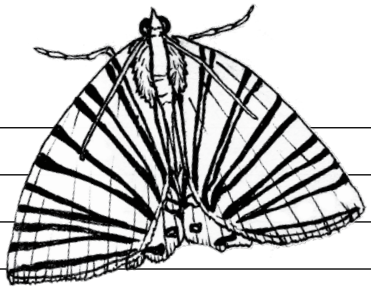
Late April, 2020 - *Central Minnesota*

On a scrap of preserved prairie, furry purple flowers of pulsatilla push through the brown grasses. Signs of other green life beneath the grasses. A V of canada geese in the sky above.

In the sky to the north, toward the Twin Cities, where until the pandemic the stars might've been lost behind smog, we see not only stars, the star-that-doesn't-move—and also a faint greenish beam of light that sways gently back and forth like the spotlight of some out-of-sight amphitheater—the aurora borealis.

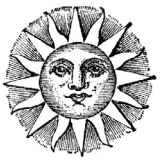
Late April, 2021 - *South Louisiana*

Mulberries coming ripe.



Notes

May



All data specific to New Orleans, LA

DAY OF MONTH	MOON	SUNRISE	SUNSET	SOLAR NOON TIME	SOLAR NOON ANGLE	DAY-LIGHT HOURS
1		6:17am	7:37pm	12:57pm	75°	13h20m
5		6:14am	7:40pm	12:56pm	76°	13h26m
12		6:09am	7:44pm	12:56pm	78°	13h36m
15		6:07am	7:46pm	12:56pm	79°	13h39m
19		6:04am	7:49pm	12:56pm	80°	13h44m
27		6:01am	7:53pm	12:57pm	81°	13h53m
31		6:00am	7:56pm	12:57pm	82°	13h56m

TREE OF THE MONTH	Kauri Tree, *Agathis australis*
JUST FUCKING GOOGLE IT	Etymology of misbelief fruit

MAY 13, 1985

Philadelphia police drop a bomb on the occupied row-house compound of environmental revolutionary group MOVE, killing 6 adults and 5 children after firing 10,000 rounds in a standoff that began when police showed up to attempt to serve arrest warrants for members of the group. 250 people were rendered homeless by the damage to surrounding buildings caused by the bomb.

Early May, 2020 *- central Minnesota*

A May Day canoe float! The buds on the maple, willow and cottonwood have burst into leaves, but miniature and pale and translucent. All the deciduous trees are putting on their solar panels. White and blue violets in bloom. Nettles small but maturing. Marsh marigolds blooming. Been hearing reports of lone sandhill cranes and today I saw one in a field—how lonely, I thought. Then I realized: the mate is on the nest!

Early May, 2021 *- farm near Lafayette, Louisiana*

Blackberries ripe and we pick a gallon. The farm is fully alive again. Squash plants sprawl their elephant ear leaves across the ground beneath banana trees busy unfurling fresh leaves.

Early May, 2022 *- central Montana*

The green is just bursting out of the brown hillsides and prairies. Mountains still heavy with snow. The runoff has not yet begun. Meadow larks sing along the fence lines. The buffalo look huge and ragged and itchy, shedding their winter coats in patches of wool that litter the grass.

Subsistence Almanac of a Rootless Oaf

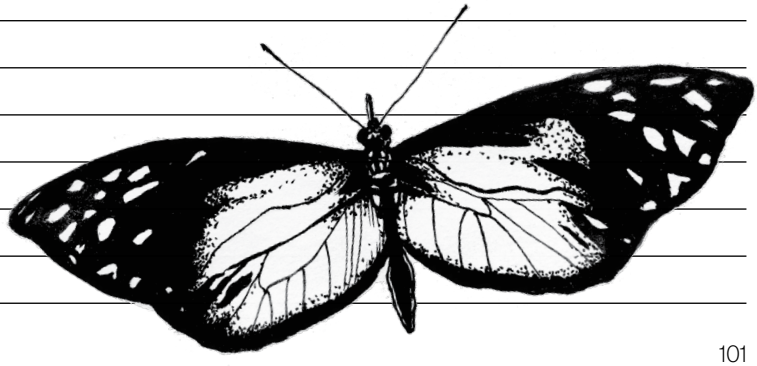
Late May, 2020 *- central Minnesota*

Heavy rain, and a couple days later the first morels. A few days later, wild asparagus in the ditches — some gone to seed, plumed above the grass like a beacon giving away the tender stalks just poking up. Grows with poison ivy, I found out a couple days later.

Late May 2022 *- central Montana*

Fields crowded with pairs of sandhill cranes. I see one baby pronghorn antelope — the others must still be in the "hiding" phase? Up in the hills, the bull elk and buck deer are off in little bands of their own, but the buck antelope are either alone or with a herd of does, many of whom are giving birth right now. Later: Morels! In the riverbottoms. Spring runoff has begun.

Notes



June

All data specific to New Orleans, LA

DAY OF MONTH	MOON	SUNRISE	SUNSET	SOLAR NOON TIME	SOLAR NOON ANGLE	DAY-LIGHT HOURS
1		5:59am	7:56pm	12:58pm	82°	13h57m
3		5:59am	7:57pm	12:58pm	82°	13h58m
10		5:58am	8:00pm	12:59pm	83°	14h2m
15		5:58am	8:02pm	1:00pm	83°	14h4m
17		5:59am	8:04pm	1:01pm	83°	14h4m
SOLSTICE 21		5:59am	8:04pm	1:02pm	83°	14h4m
26		6:01am	8:05pm	1:03pm	83°	14h4m
30		6:02am	8:05pm	1:04pm	83°	14h3m

The Green Belt Movement holds its first tree planting event to respond to the needs of rural Kenyan women suffering from food insecurity, desertification, and difficult access to firewood. GBM and its founder Wangari Maathai have helped establish 5,000 nurseries, plant 51 million trees, and defend urban commons against privatization and development, such as the 2600-acre Karura Forest in Nairobi.

JUNE 5, 1977

TREE OF THE MONTH	Silver Birch, *Betula pendula*
JUST FUCKING GOOGLE IT	Whale evolution

Early June, 2022 *- Central Montana*

Heavy rain storms roll through, rivers still high. Lots of oyster mushrooms on cottonwood stumps. Willows flowering. Trout feeding beneath the surface. In the mountains, service berry (amelanchier alnifolia) are budding. On the prairie, apple blossoms have become small, green, fledgling apples.

Late June, 2021 *- Central Montana*

In the mountains, big patches of arnica in bloom—time to harvest for mom's annual salve making. Creek running high and not a fish to be seen. But anyhow, a blessed day: A beaver swims damn near between my legs. I look up to see a coyote watching me before turning and bounding away through tall grass.

Subsistence Almanac of a Rootless Oaf

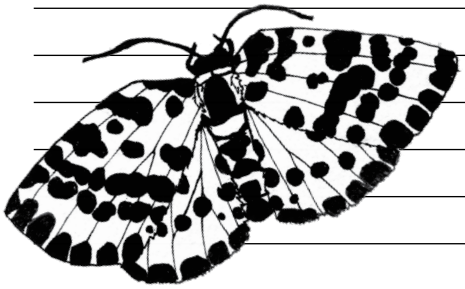
Late June, 2022 *- Central Montana*

Fir trees thick with stunning purple cones—are they fertilized yet? Clematis and arrow leaf balsam root also in bloom. At a mountain lake, evening caddis fly hatch! And the trout—cut throats, rainbows and browns—start to hit the surface. Catch several for J and L's smoker. Curlews nesting in the nearby grass.

Late June, 2022 *- central Montana*

On the prairie: cottonwoods sending out their seeds, the size and color of peeled sesames, on wispy balloons of cotton. Crazy to think each of these little specks contains a great tree. In the prairie hills, blooming: sego lilies, yucca (also in the lily family, not the agave family, as you might think to look at it), blanket flower, salsify, and pea-flowered crazy weed. Chokecherry blossoms gone. Wild onions seeded out. Find a place where an elk recently gave birth. Many doe deer are accompanied by fawns—see one doe chasing a coyote. Burrowing owls can be seen.

Notes



July

DAY OF MONTH	MOON	SUNRISE	SUNSET	SOLAR NOON TIME	SOLAR NOON ANGLE	DAY-LIGHT HOURS
1		6:02am	8:05pm	1:04pm	83°	14h2m
3		6:03am	8:05pm	1:04pm	83°	14h2m
9		6:06am	8:04pm	1:05pm	82°	13h58m
15		6:09am	8:02pm	1:06pm	82°	13h53m
17		6:10am	8:02pm	1:06pm	81°	13h51m
25		6:15am	7:58pm	1:06pm	80°	13h43m
31		6:18am	7:54pm	1:06pm	78°	13h35m

All data specific to New Orleans, LA

TREE OF THE MONTH	American Holly, *Ilex opaca*
JUST FUCKING GOOGLE IT	Armadillo belly

JULY 31, 1960

The end of the "Malayan emergency" which had begun in 1948 after the killing of three British rubber plantation managers by communist insurgents. This conflict saw the first military use of the herbicide and defoliant Agent Orange, as the British sought to deprive the Malayan guerillas, who were largely sustained by landless peasants farming at the end of the jungles, of food and cover.

Early July, 2020 - *Central Montana*

At dusk, fish rising like mad. Standing in the river and hear them all around you. Still air thick with flies—mostly may flies. A beaver boats by with a large twig of green leaves. I catch as many fish as I've ever caught.

Early July, 2022 - *Central Montana*

On the prairie: Sego lilies fading. Wild echinacea blooming. And yellow prairie coneflower. Milkweed. Giant puffball mushrooms, the size of soccer balls, can be spotted in the fields as you drive. I bring home four—too many. Ticks still out, though fewer. Have been joined by mosquitoes and deer flies. One evening, watch several pairs of cow elk w/ calves moving down coulee. Calves well higher than their mothers' knees and moving well. Find a big patch of wild asparagus, but it's mostly gone to seed. And, as in Minnesota, it's royally ensconced in poison ivy…

Subsistence Almanac of a Rootless Oaf

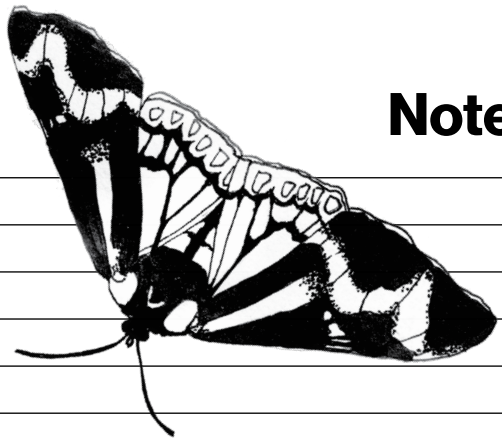
Late July, 2020 - *Central Montana*

First ripe huckleberries of the year. Raspberries just starting to form but ripe strawberries grow thick in some places. Fireweed has shot its pink flower cones up to nearly head high. On the drive out, saw two buck antelope tussling, horns locked together. One older, one young, but not fighting violently — more like practicing or playing. Also saw 20-head of elk—all cows and calves. Bulls off by themselves til rut. Calves nearly shoulder height on the cows but still trying to nurse.

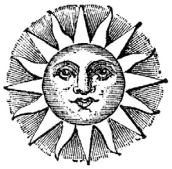
Late July, 2022 - *Central Montana*

Hear a sound and look down hill to see a grizzly bear, no doubt about it, hurling himself over logs and scrub in the burn area across the river. We watch from a few hundred yards as the bear turns over logs for grubs and then grabs riverside bushes and strips something on their ends—green service berries? Willow tips? Hawthorn berries?

Notes



August



All data specific to New Orleans, LA

DAY OF MONTH	MOON	SUNRISE	SUNSET	SOLAR NOON TIME	SOLAR NOON ANGLE	DAY-LIGHT HOURS
1		6:19am	7:53pm	1:06pm	78°	13h34m
8		6:23am	7:47pm	1:05pm	76°	13h24m
15		6:27am	7:41pm	1:04pm	74°	13h14m
16		6:28am	7:40pm	1:04pm	74°	13h12m
24		6:32am	7:32pm	1:02pm	71°	12h59m
30		6:36am	7:25pm	1:00pm	69°	12h49m
31		6:36am	7:24pm	1:00pm	69°	12h47m

Popés rebellion begins. Pueblo people kill 400 Spaniards and most of the priests while driving them from their declared Provincia de Santa Fe de Nuevo México over the course of eleven days. Popé was a charismatic religious leader who had been arrested for sorcery, but succeeded in uniting the Pueblo with the promise of revitalizing the old ways of life.

AUGUST 10, 1680

TREE OF THE MONTH	Water Oak, *Quercus nigra*
JUST FUCKING GOOGLE IT	Mai 1968 graffiti

AUGUST 24, 2019

Hurricane Dorian forms in the Atlantic basin. Reaching the Bahamas a week later, Dorian becomes the strongest hurricane on record at landfall, with 185-mph sustained winds, and gusts over 220-mph.

Early August, 2020 *- Central Montana*

On the mountain lakes, the trout bite on big hoppers. The runoff is over and my favorite fishing channel has gone dry. The service berries are ripe and the bushes droop under the weight of grape-like clusters. We pick 5 quarts in an hour.

Early August, 2022 *- Central Montana*

Prairie: *Almost all flowers, even the yarrow, have succumbed to the heat. My garden of potatoes, swiss chard, beets, beans, and squash is suffering from heat, wind and lack of water—the water catchment tank is too small and has been dry since the regular rains stopped in early July.*

Mountains: *Huckleberry bushes are heavy with berries. I catch a nice trout on a may fly imitation and roast it over the coals.*

Late August, 2020 *- Central Montana*

Chokecherries ripe. Smoke has moved thick into the valley, obscuring the mountains. Sandhill cranes, after months in anti-social monogamous pairs, have begun to flock up—a sure sign of fall.

Subsistence Almanac of a Rootless Oaf

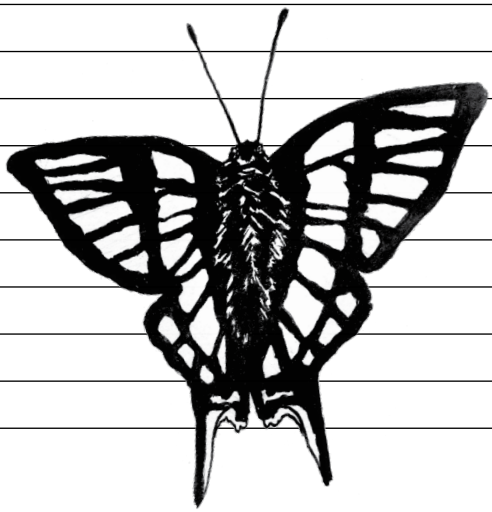
Late August, 2021 *- Central Montana*

Rain and cold moves in to replace monotonous heat. This morning, the air is clear of smoke for the first time in weeks. First dusting of snow on the high mountain peaks.

Late August, 2022 *- Central Montana*

Prairie: *Buffalo berries ripe—I find they make a nice sauce to serve with meat, tart and sweet, kind of like a cranberry sauce. Bear poop on the trail filled with chokecherry pits. Smoke blots out the mountains. In the evening, I hear the weird high shriek of a bull elk trying out his bugle. The rut has begun. Male rattlesnake grasshoppers doing their loud, crackling dance above the driveway gravel. Bad service berry crop this year.*

Notes



September

DAY OF MONTH	MOON	SUNRISE	SUNSET	SOLAR NOON TIME	SOLAR NOON ANGLE	DAY-LIGHT HOURS	TREE OF THE MONTH	JUST FUCKING GOOGLE IT
1		6:37am	7:22pm	1:00pm	69°	12h46m	Black Willow, *Salix nigra*	reddit ILPT
6		6:39am	7:16pm	12:58pm	67°	12h36m		
14		6:44am	7:06pm	12:55pm	64°	12h23m		
15		6:44am	7:05pm	12:55pm	63°	12h20m		
22		6:48am	6:57pm	12:53pm	61°	12h8m		
EQUINOX 23		6:49am	6:55am	12:52pm	60°	12h7m		
29		6:52am	6:48pm	12:50pm	58°	11h56m		
30		6:52am	6:47pm	12:50pm	57°	11h54m		

All data specific to New Orleans, LA

SEPTEMBER 26, 1990

The Kanesetake Resistance, one of the longest armed standoffs in so-called North America in the modern age, concludes as a few dozen remaining Mohawk defenders disengage from their barricaded roadblocks in Oka, Quebec. The Resistance had begun to prevent the expansion of a nearby golf course in July, and saw several hundred warriors join to face the provinicial police and 4,000 Canadian troops, including a weeks-long blockade of the Mercier Bridge, a major access to Montreal. Eventually, the golf course plan was halted and the Canadian government repurchased the land from private developers.

Early September, 2020 *- Central Montana*

First frost. We harvest our squash and cut down our tomato plants to hang upside down and ripen indoors.

Early September, 2021 *- South Louisiana*

The days after Hurricane Ida are hot and the nights are hot and there's no relief, not even a fan, because the powers out. Driving through the swamp, see the effects of what M. says is "hurricane highway": In some places, close to half the trees along the road are broken off by wind, but the trees further back in the forest, where they shelter each other, held up much better. Notice that the cypress needles have all begun to turn red. Sign of fall? M. says he thinks it's on account of shock from the storm.

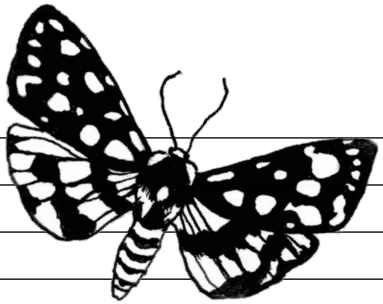
Early September, 2022 *- Central Montana*

Subsistence Almanac of a Rootless Oaf

Sharp tail grouse hunting. In the big mountain rivers, the mountain whitefish are eating nymphs. Catch many for the smoker. Went to pick chokecherries, as they are sweeter after the frost, but they are all gone already—came in early and already picked clean by birds?

Late September, 2020 *- Central Montana*

In the mountains, felling dead lodge pole pines for firewood. Carry the logs to the trucks through foot tangles of yellowed huckleberry and half-burned piles of slash. Sit to eat a sandwich and notice a cold edge on the wind—it will snow up here tonight. On the drive out, see a weasel running with something big in her mouth. Black tipped tail and coat still the color of light honey (not yet transformed into an ermine), built low and fierce and snake-like, carrying home her prey.



Notes

October

All data specific to New Orleans, LA

DAY OF MONTH	MOON	SUNRISE	SUNSET	SOLAR NOON TIME	SOLAR NOON ANGLE	DAY-LIGHT HOURS
1		6:53am	6:45pm	12:49pm	57°	11h52m
6		6:56am	6:39pm	12:48pm	55°	11h43m
14		7:01am	6:30pm	12:47pm	52°	11h29m
15		7:02am	6:29pm	12:46pm	52°	11h28m
21		7:06am	6:23pm	12:44pm	50°	11h17m
28		7:10am	6:16pm	12:44pm	47°	11h6m
31		7:13am	6:14pm	12:43pm	46°	11h1m

TREE OF THE MONTH	Great Basin Bristlecone Pine, *Pinus longaeva*
JUST FUCKING GOOGLE IT	Hawaiian monk seals, eels

OCTOBER 10, 1941

Ogoni writer, activist, and television producer Ken Saro-Wiwa is born in Bori, Nigeria. He would help lead the Movement for the Survival of the Ogoni People (MOSOP) against the environmental destruction of the Niger delta by Royal Dutch Shell in the 1990s until his execution along with 8 other MOSOP activists ordered by military tribunal in November 1995.

Early October, 2020 - *Central Montana*

First heavy snow of the season. Hunted antelope — noticed the rut is still going on.

Early October, 2022 - *Central Montana*

Cottonwoods and aspens gone yellow, gold and orange. Huckleberry plants in forest understory turned red as blood. Fresh elk rub trees everywhere. I kill two grouse, one a dusky one a ruffed. When I gut them, I open their crops. In one: two big red rose hips in a nest of clover leaves. In the other: a dozen purple juniper berries in a wreath of fir needles and kinnickinnick leaves.

Subsistence Almanac of a Rootless Oaf

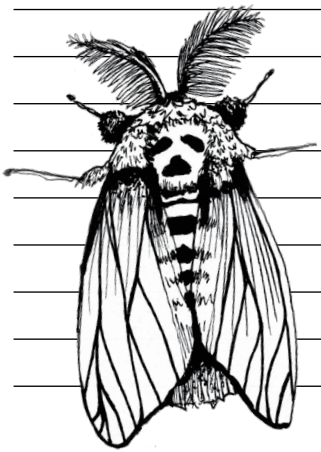
Late October, 2020 - *Central Montana*

A storm blows in and drops nearly a foot of snow, powdery in the cold. Opening morning of elk rifle season, very cold. Some 600 head of elk are herded up down in the river valley. See an ermine, white with a bristling of blonde hackles down her back, padding across the snow with a dead vole in her mouth. Days later, I kill a bull elk after tracking a group of bulls all morning.

Late October, 2021 - *South Louisiana*

Marsh: *Tide coming in from a 1:30 pm low, wind blowing inshore from the Gulf. Catch a few nice speckled trouts on an artificial shrimp.*

Notes



November

NOVEMBER 23, 1887

A sugarcane cutter's strike by 10,000 mostly black laborers is ended by a race massacre in Thibodeaux, Louisiana, when paramilitary forces under a parish judge and plantation owner round up and murder suspected black organizers of the Knights of Labor, killing between 30 and 300. No reattempt to organize sugarcane organizers in Southeast Louisiana would be made until the 1950s.

All data specific to New Orleans, LA

DAY OF MONTH	MOON	SUNRISE	SUNSET	SOLAR NOON TIME	SOLAR NOON ANGLE	DAY-LIGHT HOURS
1		7:13am	6:13pm	12:43pm	46°	10h59m
5		6:17am	5:10pm	11:43am	45°	10h53m
13		6:23am	5:05pm	11:46am	42°	10h42m
15		6:25am	5:04pm	11:44am	42°	10h39m
20		6:29am	5:02pm	11:45am	41°	10h33m
27		6:35am	5:00pm	11:47am	39°	10h25m
30		6:37am	5:00pm	11:47am	39°	10h23m

TREE OF THE MONTH	Yoshino Cherry, *Prunus × yedoensis*
JUST FUCKING GOOGLE IT	Chewy pecan date cookies

Early November, 2021 - *Central Montana*

Strange hunting this year, weatherwise. Cold enough, mostly, but almost no snow on the ground, even up high. D. backs up my thinking: No elk down here because they haven't made their migration. There has been no cold snap or snow storm big enough to push the elk out of their summer range in the high mountains—and there won't be, it turns out, before the season ends. I kill a nice mule deer.

Subsistence Almanac of a Rootless Oaf

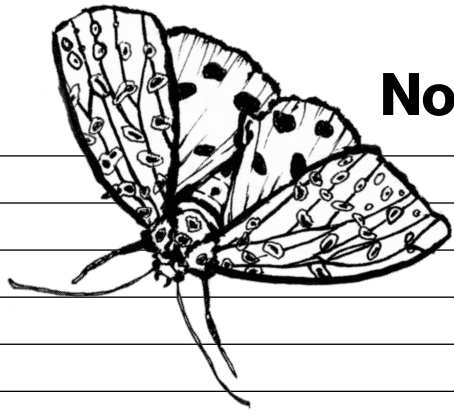
Early November, 2022 - *Central Montana*

Snow geese passing over in great crooked Vs—hundreds of them. Snow berries (inedible) and a few last rose hips. Unidentified large mustelid tracks. Heavy winds (ahead of a big winter storm) knock down trees. Big storm rolls in, and cold, and when the suns comes out—"best elk hunting weather in years," says P.

Late November, 2022 - *South Louisiana*

Live oaks heavy with acorns. Red shouldered hawk hunting from a perch on a light pole, swooping down to catch lizards, maybe, or large insects.

Notes



December

DAY OF MONTH	MOON	SUNRISE	SUNSET	SOLAR NOON TIME	SOLAR NOON ANGLE	DAY-LIGHT HOURS
1		6:38am	5:00pm	11:49am	38°	10h22m
4		6:40am	5:00pm	11:50am	38°	10h20m
12		6:46am	5:01pm	11:53am	37°	10h15m
15		6:48am	5:02pm	11:55am	37°	10h14m
19		6:50am	5:03am	11:57am	37°	10h13m
SOLSTICE 21		6:51am	5:04pm	11:58am	37°	10h13m
26		6:54am	5:07pm	12:00am	37°	10h14m
31		6:55am	5:10pm	12:03am	37°	10h15m

All data specific to New Orleans, LA

TREE OF THE MONTH — Devil's Walking Stick, *Aralia spinosa*

JUST FUCKING GOOGLE IT — Magic Mushrooms & Reindeer

DECEMBER 12, 1844

A group of several hundred masked and disguised tenant farmers abduct and menace a Columbia County (NY) sheriff attempting to serve process to a farmer in arrears on his rent payments, escalating the years-long "Anti-Rent War." New York State would attempt to repress the farmers with posses, militias, and anti-masking laws to maintain the system of feudal tenure until its 1846 constitution brought some land reforms.

DECEMBER 9, 1842

Peter Kropotkin, author of Mutual aid: A factor of evolution is born in Moscow, Russia.

December, 2022 - *South Louisiana*

Farm: *Warm. Banana trees still leafed out but no fruit. Satsuma fruiting hugely. Fig trees with a flush of green fruit. The salt bush taking over the place—it's known locally as manglier, we learn, and the Cajuns use it to treat colds, make a tea of the bitter, vaguely foot-shaped leaves. Coyote poop on the trails, a hawk hunting over the dense prairie grasses, tangles of black berry, groves of manglier—the rewilding is coming along nicely. This land was monoculture not too many years ago—how does it remember all these plants? In the night, we hear geese and see their dim V pass over us, in front of the full moon.*

Subsistence Almanac of a Rootless Oaf

City: *Walked around the neighborhood while the laundry washed. Astounded by how many fruits are ripe this December day! Came home with meyer lemons, purple figs, american persimmons, a grapefruit, a handful of kumquats...*

Monthly illustrations by Chloe Harrison Ach

Notes

you are invited to the

Weelaunee Food Autonomy Festival

March 10-13, 2023

As we experience intensifying climate instability, economic disparity, and ecological destruction, our hands have been in the dirt, working to share food and growing techniques within the communities we inhabit. Across the continent, diverse collectives, farms, and mutual aid hubs have organized themselves, especially since 2020, busy creating autonomous food systems, developing grassroots crop breeding, building food production and distribution systems for collective resilience and communal luxury, outside of the market or USDA management. These efforts at mutual aid and horizontal experimentation challenge state violence, racist dispossession, and the myth of scarcity.

At the same time, a movement in Atlanta enters a second year defending a 400 acre forest on stolen Muscogee land, which is threatened by construction of a police training facility (dubbed Cop

City) and what would be the largest soundstage in the world, solidifying Atlanta as the new Hollywood. Those defending the forest from these dystopian projects are also creating a world outside of the market or state's control. The camps are no longer simply tents and makeshift kitchens stocked with store-bought food. Eggplants and fig trees sunbathe at the edge of the creek, a cold frame awaits spring germination, foragers commune with the undergrowth, and carpenters improvise structures on the ground and high in the canopy.

Restoring this forest, scarred with a history of Muscogee dispossession and prison slave labor, is a complicated task. But we know autonomous food production can break the dirty cycle of land displacement and dependence on the capitalist food system. Moving in this way, towards food autonomy, is essential to the vitality of all life inhabiting the forest. We want to take this opportunity to share lessons and knowledge in all things plants, and learn from the ideas and work of others from all over, inside the fertile context of a forest occupation. Now is the perfect time to combine practical discussions of food autonomy with the movement work of defending the Atlanta forest, in what Cooperation Jackson calls a strategy of "building and fighting."

One and all are invited to join us for the first annual Weelaunee Planting Festival March 10-13th. Together we will build our capacity in the forest by meeting each other, planting hundreds of fig, pawpaw, and persimmon saplings, grafting onto callery pears, and sharing in a variety of food autonomy workshops and discussions.

To RSVP and propose workshops or discussions, please contact us at **weelauneefoodautonomy@riseup.net**

WeelauneeFoodAutonomy.org

A List of Perennial Vegetables

Note that this is a global inventory of perennial vegetables. Some of these species are, or could become, serious weeds outside of their native range. We present this list to provide a jumping off point for those looking to learn more of the possibilities of a perennial agriculture. For much more down this rabbit hole, check out Edible Forest Gardens vol. 1 & 2 by Dave Jacke with Eric Toensmeier.

EXTREME COLD (USDA Zones 1-3)

nodding wild onion (Allium cernuum), showy & common milkweed (Asclepias syriaca, A. speciosa), red valerian (Centranthus ruber), Maximilan sunflower (Helianthus maximiliani), sunchoke (Helianthus tuberosus), duckweed (Lemna spp.), ostrich fern (Matteuccia struthiopteris), watercress (Nasturtium officinale), mountain sorrel (Oxyria digyna), yampah (Perideridia gairdnerii), rhubarb (Rheum x cultorum), arrowhead (Sagittaria latifolia), cattail (Typha spp.), water meal (Wolffia spp.)

COLD TEMPERATE (USDA Zones 4-7)

perennial leek (Allium ampeloprasum), multiplier onion (Allium cepa aggregatum), walking onion (Allium cepa proliferum), nodding wild onion (Allium cernuum), Welsh onion (Allium fistulosum), ramps (Allium tricoccum), garlic chives (Allium tuberosum), groundnut (Apios americana), udo (Aralia cordata), river cane (Arundinaria gigantea), showy & common milkweed (Asclepias syriaca, A. speciosa), asparagus (Asparagus officinalis), yellow asphodel (Asphodeline lutea), sea beet (Beta vulgaris maritima), Turkish rocket (Bunias orientalis), camass (Camassia spp.), fragrant spring tree (Cedrella sinensis), red valerian (Centranthus ruber), good King Henry (Chenopodium bonus-henricus), chicory (Cichorium intybus), colewort (Crambe cordifolia), sea kale (Crambe maritima), jinenjo (Dioscorea japonica), Chinese yam (Dioscorea opposita), sylvetta arugula (Diplotaxis muralis, D. tenuifolia), Caucasian spinach (Hablitzia tamnoides), Maximilan sunflower (Helianthus maximiliani), sunchoke (Helianthus tuberosus), daylily (Hemerocallis spp.), wood nettle (Laportaea canadensis), duckweed (Lemna spp.), lovage (Levisticum officinale), biscuit root (Lomatium spp.), leaf goji (Lycium chinense), gumbo leaf mallow (Malva moschata), ostrich fern (Matteuccia struthiopteris), mulberry (Morus alba), watercress (Nasturtium officinale), American lotus (Nelumbo lutea), Chinese lotus (Nelumbo nucifera), water celery (Oenanthe javanica), mountain sorrel (Oxyria digyna), yampah (Perideridia gairdnerii), fuki (Petasites japonicus), running bamboo (Phyllostachys spp.), clammy ground cherry (Physalis heterophylla), longleaf groundcherry (Physalis longifolia), ground cherry (Physalis pruinosa), pokeweed (Phytolacca americana), giant Solomon's seal (Polygonatum commutatum), Himalayan rhubarb (Rheum australe), turkey rhubarb (Rheum palmatum), rhubarb (Rheum x cultorum), staghorn sumac (Rhus typhina), French sorrel (Rumex acetosa), sheep sorrel (Rumex acetosella), buckler-leaf sorrel (Rumex scutatus), arrowhead (Sagittaria latifolia), running bamboo (Sasa kurilensis), scorzonera (Scorzonera hispanica), running bamboo (Semiarundinaria fastuosa), skirret (Sium sisarum), Chinese artichoke, crosnes (Stachys sieboldii), dandelion (Taraxacum officinale), New Zealand spinach (Tetragonia tetragonioides), linden, lime, basswood (Tilia spp.), cattail (Typha spp.), stinging nettle (Urtica dioica), water meal (Wolffia spp.)

COOL MARITIME (USDA Zones 8-9)

perennial leek (Allium ampeloprasum), multiplier onion (Allium cepa aggregatum), walking onion (Allium cepa proliferum), nodding wild onion (Allium cernuum), Welsh onion (Allium

fistulosum), garlic chives (Allium tuberosum), ramsons (Allium ursinum), groundnut (Apios americana), wild celery (Apium prostratum filiforme), udo (Aralia cordata), asparagus (Asparagus officinalis), yellow asphodel (Asphodeline lutea), saltbush (Atriplex halimus), water parsnip (Berula erecta), sea beet (Beta vulgaris maritima), "Western Front" kale (Brassica napus), wild cabbage (Brassica oleracea), "Colocha" (Brassica oleracea), "Tree Collards" (Brassica oleracea acephala), Gai Lon (Brassica oleracea alboglabra), "9 Star" perennial broccoli (Brassica oleracea botrytis), branching bush kales, "Dorbentons" kale (Brassica oleracea ramosa), Turkish rocket (Bunias orientalis), camass (Camassia spp.), achira, edible canna (Canna edulis), fragrant spring tree (Cedrella sinensis), red valerian (Centranthus ruber), good King Henry (Chenopodium bonus-henricus), chicory (Cichorium intybus), taro (Colocasia esculenta), colewort (Crambe cordifolia), sea kale (Crambe maritima), cardoon (Cynara cardunculus), globe artichoke (Cynara scolymus), Chinese yam (Dioscorea opposita), sylvetta arugula (Diplotaxis muralis, D. tenuifolia), Caucasian spinach (Hablitzia tamnoides), Maximilan sunflower (Helianthus maximiliani), sunchoke (Helianthus tuberosus), daylily (Hemerocallis spp.), wood nettle (Laportaea canadensis), lovage (Levisticum officinale), biscuit root (Lomatium spp.), leaf goji (Lycium chinense), gumbo leaf mallow (Malva moschata), bush banana, Austral doubah (Marsdenia australis), ostrich fern (Matteuccia struthiopteris), mulberry (Morus alba), watercress (Nasturtium officinale), American lotus (Nelumbo lutea), Chinese lotus (Nelumbo nucifera), water celery (Oenanthe javanica), nopale cactus, tuna (Opuntia ficus-indica, O. robusta, O. streptacantha), oca (Oxalis tuberosa), mountain sorrel (Oxyria digyna), yampah (Perideridia gairdnerii), fuki (Petasites japonicus), runner bean (Phaseolus coccineus), lima bean (Phaseolus lunatus), running bamboo (Phyllostachys spp.), goldenberry (Physalis peruviana), pokeweed (Phytolacca americana), root beer leaf, hoja santa (Piper auritum), giant Solomon's seal (Polygonatum commutatum), Himalayan rhubarb (Rheum australe), turkey rhubarb (Rheum palmatum), rhubarb (Rheum x cultorum), staghorn sumac (Rhus typhina), French sorrel (Rumex acetosa), sheep sorrel (Rumex acetosella), buckler-leaf sorrel (Rumex scutatus), arrowhead (Sagittaria latifolia), Chinese arrowhead (Sagittaria sinensis), running bamboo (Sasa kurilensis), scorzonera (Scorzonera hispanica), running bamboo (Semiarundinaria fastuosa), skirret (Sium sisarum), yacon (Smallianthus sonchifolia), potato (Solanum tuberosum), Chinese artichoke, crosnes (Stachys sieboldii), dandelion (Taraxacum officinale), New Zealand spinach (Tetragonia tetragonioides), linden, lime, basswood (Tilia spp.), "Ken Aslett" mashua (Tropaeolum tuberosum), cattail (Typha spp.), stinging nettle (Urtica dioica), izote (Yucca guatemalensis)

HOT AND HUMID (USDA Zones 8-9)

perennial leek (Allium ampeloprasum), multiplier onion (Allium cepa aggregatum), walking onion (Allium cepa proliferum), nodding wild onion (Allium cernuum), Welsh onion (Allium fistulosum), garlic chives (Allium tuberosum), groundnut (Apios americana), river cane (Arundinaria gigantea), showy & common milkweed (Asclepias syriaca, A. speciosa), asparagus (Asparagus officinalis), Turkish rocket (Bunias orientalis), achira, edible canna (Canna edulis), fragrant spring tree (Cedrella sinensis), taro (Colocasia esculenta), colewort (Crambe cordifolia), globe artichoke (Cynara scolymus), air potato (Dioscorea bulbifera), Chinese yam (Dioscorea opposita), sylvetta arugula (Diplotaxis muralis, D. tenuifolia), sunchoke (Helianthus tuberosus), daylily (Hemerocallis spp.), arrowroot (Maranta arundinacea), moringa (Moringa oleifera), African moringa (Moringa stenopetala), mulberry (Morus alba), watercress (Nasturtium officinale), American lotus (Nelumbo lutea), Chinese lotus (Nelumbo nucifera), nopale cactus, tuna (Opuntia ficus-indica, O. robusta, O. streptacantha), lima bean (Phaseolus lunatus), goldenberry (Physalis peruviana), pokeweed (Phytolacca americana), root beer leaf, hoja santa (Piper auritum), "Day Neutral" winged bean (Psophocarpus tetragonobolus), arrowhead (Sagittaria latifolia), Chinese arrowhead (Sagittaria sinensis), chayote (Sechium edule), yacon (Smallianthus sonchifolia), cattail (Typha spp.), stinging nettle (Urtica dioica)

ARID AND HOT (USDA Zones 8-10)

edible seed acacias (Acacia holosericea, A. murrayana, A victoriae), hardy agaves (Agave parreyi, A. chrysantha, A. deserti, A. utahensis, A. palmeri), tropical agaves (Agave salmiana, A. tequilana), garlic chives (Allium tuberosum), pigeon pea (Cajanus cajan), palo verde (Cercidium microphyllum), chaya (Cnidoscolus chayamansa), bull nettle (Cnidoscolus palmeri), cholla (Cylindropuntia acanthocarpa), gamote (Cymopteris spp.), moringa (Moringa oleifera), African moringa (Moringa stenopetala), mulberry (Morus alba), nopale cactus, tuna (Opuntia ficus-indica, O. robusta, O. streptacantha), runner bean (Phaseolus coccineus), lima bean (Phaseolus lunatus), cache bean (Phaseolus polysanthus), Livingstone potato (Plectranthus esculentus), marama bean (Tylosema esculentum), izote (Yucca guatemalensis),

MILD MEDITERRANEAN (USDA Zones 8-10)

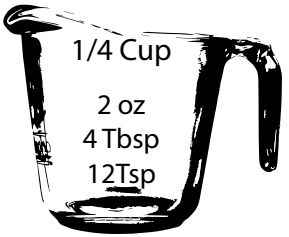
perennial okra (Abelmoschus esculentus), edible seed acacias (Acacia holosericea, A. murrayana, A victoriae), hardy agaves (Agave parreyi, A. chrysantha, A. deserti, A. utahensis, A. palmeri), tropical agaves (Agave salmiana, A. tequilana), perennial leek (Allium ampeloprasum), multiplier onion (Allium cepa aggregatum), walking onion (Allium cepa proliferum), Welsh onion (Allium fistulosum), garlic chives (Allium tuberosum), wild celery (Apium prostratum filiforme), water hawthorn (Aponogeton distachios), udo (Aralia cordata), asparagus (Asparagus officinalis), yellow asphodel (Asphodeline lutea), saltbush (Atriplex halimus), water parsnip (Berula erecta), sea beet (Beta vulgaris maritima), "Western Front" kale (Brassica napus), wild cabbage (Brassica oleracea), "Colocha" (Brassica oleracea), "Tree Collards" (Brassica oleracea acephala), Gai Lon (Brassica oleracea alboglabra), "9 Star" perennial broccoli (Brassica oleracea botrytis), branching bush kales, "Dorbentons" kale (Brassica oleracea ramosa), Turkish rocket (Bunias orientalis), camass (Camassia spp.), achira, edible canna (Canna edulis), babac (Carica pentaloba), fragrant spring tree (Cedrella sinensis), red valerian (Centranthus ruber), good King Henry (Chenopodium bonus-henricus), chicory (Cichorium intybus), chaya (Cnidoscolus chayamansa), taro (Colocasia esculenta), colewort (Crambe cordifolia), sea kale (Crambe maritima), chipilin (Crotolaria longirostrata), figleaf gourd, chilacayote (Cucurbita ficifolia), cholla (Cylindropuntia acanthocarpa), cardoon (Cynara cardunculus), globe artichoke (Cynara scolymus), chufa (Cyperus esculentus sativus), jinenjo (Dioscorea japonica), Chinese yam(Dioscorea opposita), cush cush yam (Dioscorea trifida), sylvetta arugula (Diplotaxis muralis, D. tenuifolia), lablab bean (Dolichos lablab), water chestnut (Eleocharis dulcis), enset (Ensete ventricosum), Caucasian spinach (Hablitzia tamnoides), Maximilan sunflower (Helianthus maximiliani), sunchoke (Helianthus tuberosus), daylily (Hemerocallis spp.), cranberry hibiscus (Hibiscus acetosella), sweet potato, boniato (Ipomoea batatas), lovage (Levisticum officinale), leaf goji (Lycium chinense), gumbo leaf mallow (Malva moschata), bush banana, Austral doubah (Marsdenia australis), moringa (Moringa oleifera), African moringa (Moringa stenopetala), mulberry (Morus alba), watercress (Nasturtium officinale), American lotus (Nelumbo lutea), Chinese lotus (Nelumbo nucifera), water celery (Oenanthe javanica), nopale cactus, tuna (Opuntia ficus-indica, O. robusta, O. streptacantha), oca (Oxalis tuberosa), mountain sorrel (Oxyria digyna), yampah (Perideridia gairdnerii), fuki (Petasites japonicus), runner bean (Phaseolus coccineus), lima bean (Phaseolus lunatus), cache bean (Phaseolus polysanthus), running bamboo (Phyllostachys spp.), goldenberry (Physalis peruviana), ground cherry (Physalis pruinosa), root beer leaf, hoja santa (Piper auritum), Livingstone potato (Plectranthus esculentus), "Day Neutral" winged bean (Psophocarpus tetragonobolus), Himalayan rhubarb (Rheum australe), turkey rhubarb (Rheum palmatum), rhubarb (Rheum x cultorum), French sorrel (Rumex acetosa), sheep sorrel (Rumex acetosella), buckler-leaf sorrel (Rumex scutatus), scorzonera (Scorzonera hispanica), skirret (Sium sisarum), yacon (Smallianthus sonchifolia), pepino melon (Solanum muricatum), potato (Solanum tuberosum), hausa potato (Solonostemon rotundifolius), Chinese artichoke, crosnes (Stachys sieboldii), dandelion (Taraxacum officinale), New Zealand spinach (Tetragonia tetragonioides), linden, lime, basswood (Tilia spp.), "Ken Aslett" mashua (Tropaeolum tuberosum), mashua

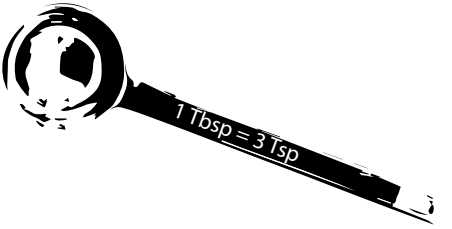
(Tropaeolum tuberosum), cattail (Typha spp.), ulluco (Ullucus tuberosus), stinging nettle (Urtica dioica), izote (Yucca guatemalensis),

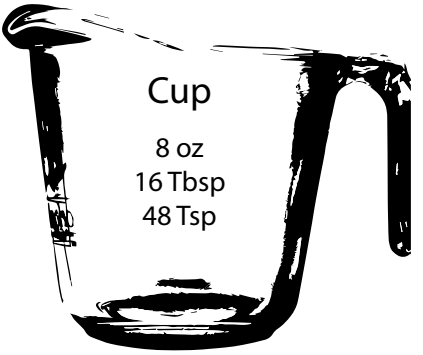
LOWLAND MONSOON AND HUMID TROPICS (USDA Zones 10-12)

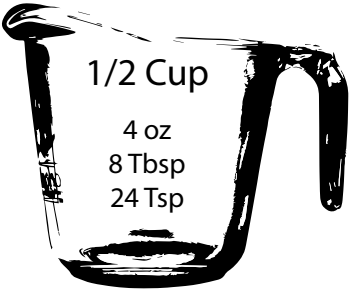
perennial okra (Abelmoschus esculentus), edible hibiscus (Abelmoschus manihot), baobab (Adansonia digitata), tropical agaves (Agave salmiana, A. tequilana), Welsh onion (Allium fistulosum), garlic chives (Allium tuberosum), giant taro (Alocasia macrhorrhizos), sissoo spinach (Alternanthera sissoo), water hawthorn (Aponogeton distachios), water yam (Aponogeton madagascarensis), breadfruit (Artocarpus altilis), jakfruit (Artocarpus heterophylla), clumping bamboo (Bambusa spp.), Malabar spinach (Basella alba), pigeon pea (Cajanus cajan), achira, edible canna (Canna edulis), papaya (Carica papaya), water hornfern (Ceratopteris thalyctroides), tepijelote (Chamaedora tepijelote), chaya (Cnidoscolus chayamansa), bull nettle (Cnidoscolus palmeri), spurge nettle (Cnidoscolus stimulosus), ivy gourd, perennial cucumber (Coccinia grandis), taro (Colocasia esculenta), cholla (Cylindropuntia acanthocarpa), clumping bamboo (Dendrocalamus spp.), white yam (Dioscorea alata), air potato (Dioscorea bulbifera), Asiatic lesser yam (Dioscorea esculenta), cush cush yam (Dioscorea trifida), lablab bean (Dolichos lablab), water chestnut (Eleocharis dulcis), gorgon plant (Euryale ferox), clumping bamboo (Gigantochloa spp.), African jointfir (Gnetum africanum), jointfir (Gnetum gnemon), Okinawa spinach (Gynura crepioides), cranberry hibiscus (Hibiscus acetosella), water spinach (Ipomoea aquatica), sweet potato, boniato (Ipomoea batatas), duckweed (Lemna spp.), guaje (Leucaena esculenta), cassava, yuca, manioc (Manihot esculenta), arrowroot (Maranta arundinacea), bitter gourd (Momordica charantica), moringa (Moringa oleifera), African moringa (Moringa stenopetala), mulberry (Morus alba), banana, plantain (Musa x paradisica), watercress (Nasturtium officinale), clumping bamboo (Nastus elatus), Chinese lotus (Nelumbo nucifera), nopale cactus, tuna (Opuntia ficus-indica, O. robusta, O. streptacantha), lima bean (Phaseolus lunatus), root beer leaf, hoja santa (Piper auritum), Livingstone potato (Plectranthus esculentus), "Day Neutral" winged bean (Psophocarpus tetragonobolus), winged bean (Psophocarpus tetragonobolus), Chinese arrowhead (Sagittaria sinensis), katuk (Sauropus androgynous), chayote (Sechium edule), hummingbird tree (Sesbania grandiflora), highlands pitpit (Setaria palmifolia), eggplant (Solanum melongena), hausa potato (Solonostemon rotundifolius) African yambean (Sphenostylis stenocarpa), fluted gourd (Telfairia occidentalis), Haitian basket vine (Trichostigma octandrum), Australian arrowgrass (Triglochin spp.), water meal (Wolffia spp.), belembe/taioba (Xanthosoma brasiliense), cocoyam (Xanthosoma saggitifolium), violet-stem taro (Xanthosoma violaceum), izote (Yucca guatemalensis)

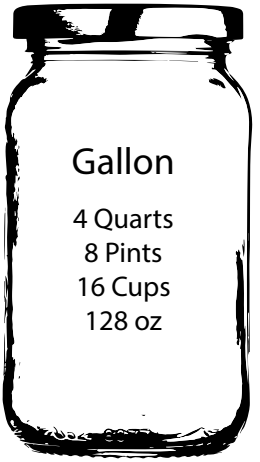
CONVERSIONS

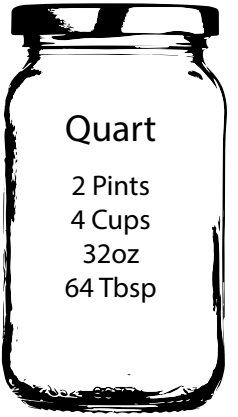


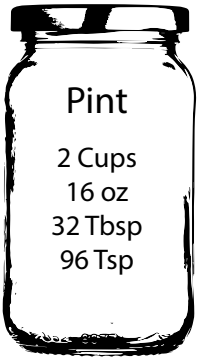










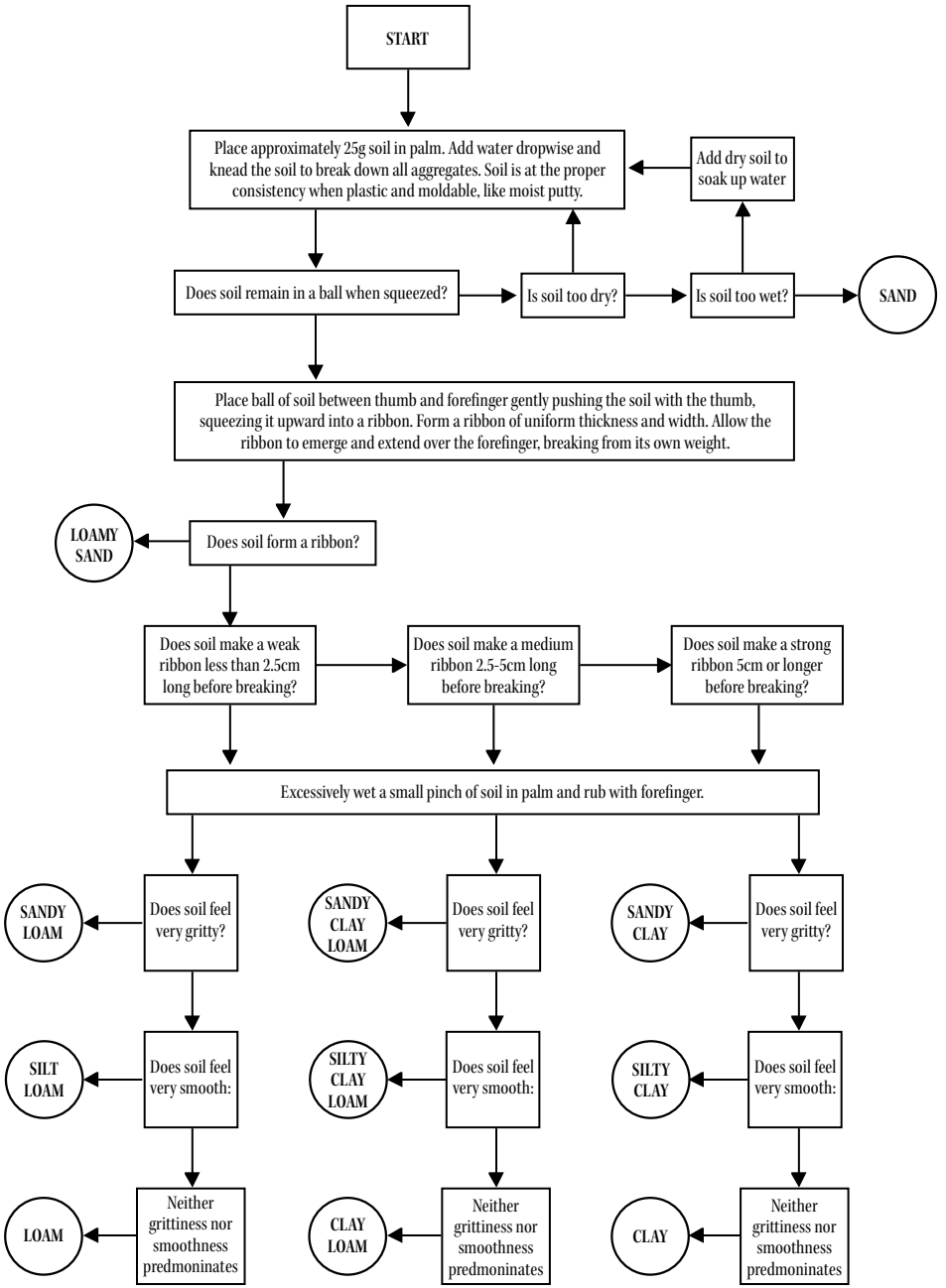


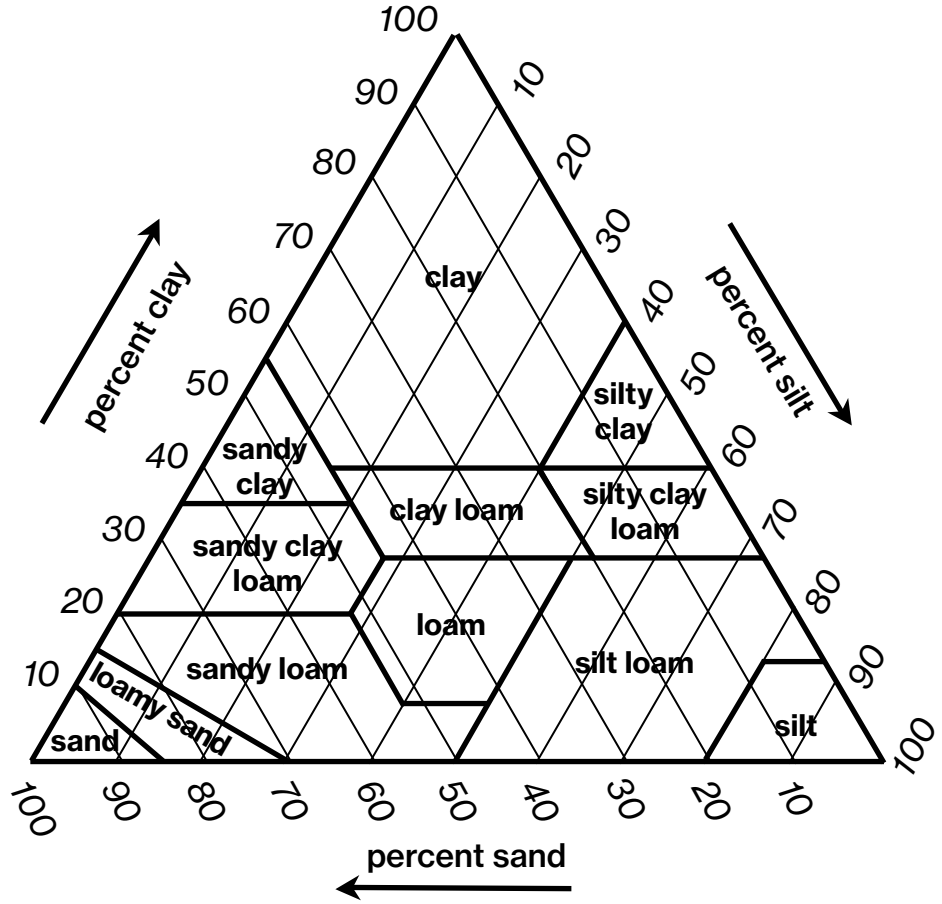
CONVERSIONS

Temperature	**° F to ° C**	**(° F-32) x .556**
	° C to ° F	**° C(1.8) + 32**

To Change	To	Multiply By
Inches	Feet	.0833
Inches	Millimeters	25.4
Millimeters	Inches	.03937
Feet	Inches	12
Meters	Feet	3.281
Feet	Yards	.3333
Yards	Feet	3
Yards	Meters	.9144
Meters	Yards	1.094
Miles	Kilometers	1.609
Kilometers	Miles	.6214
Square Inches	Square Feet	.00694
Square Feet	Square Inches	144
Square Feet	Square Yards	.11111
Square Yards	Square Feet	9
Cubic Inches	Cubic Feet	.00058
Cubic Feet	Cubic Inches	1728
Cubic Feet	Cubic Yards	.03703
Cubic Yards	Cubic Feet	27
Cubic Inches	Gallons	.00433
Cubic Feet	Gallons	7.48
Gallons	Cubic Inches	231
Gallons	Cubic Feet	.1337
Gallons	Lbs of Water	8.33
Lbs of Water	Gallons	.12004
Ounces	Pounds	.0625
Pounds	Ounces	16
Inches of Water	Lbs/Square Inch	.0361

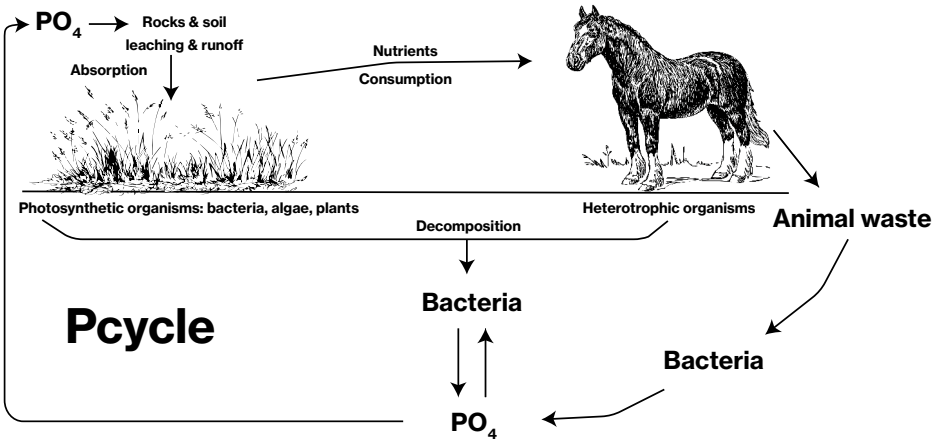
Home Test for Soil Type




100
90
80
70
60
50
40
30
20
10
percent clay
clay
silty clay
sandy clay
clay loam
silty clay loam
sandy clay loam
loam
silt loam
sandy loam
loamy sand
sand
silt
percent silt
percent sand

Essential Plant Nutrients

Nutrient	Ions Absorbed by Plants
Structural elements	
Carbon, C	CO_2
Hydrogen, H	H_2O
Oxygen, O	O_2
Primary nutrients	
Nitrogen, N	NO_3^-, NH_4^+
Phosphorus, P	$H_2PO_4^-$,HPO_4^{-2}
Potassium, K	K^+
Secondary nutrients	
Calcium, Ca	Ca^{+2}
Magnesium, Mg	Mg^{+2}
Sulfur, S	SO_4^{-2}
Micronutrients	
Boron, B	$H_2BO_3^-$
Chlorine, Cl	Cl^-
Cobalt, Co	Co^{+2}
Copper, Cu	Cu^{+2}
Iron, Fe	Fe^{+2}, Fe^{+3}
Manganese, Mn	Mn^{+2}
Molybdenum, Mo	MoO_4^{-2}
Zinc, Zn	Zn^{+2}



Typical nutrient content, moisture content, and weight of manure

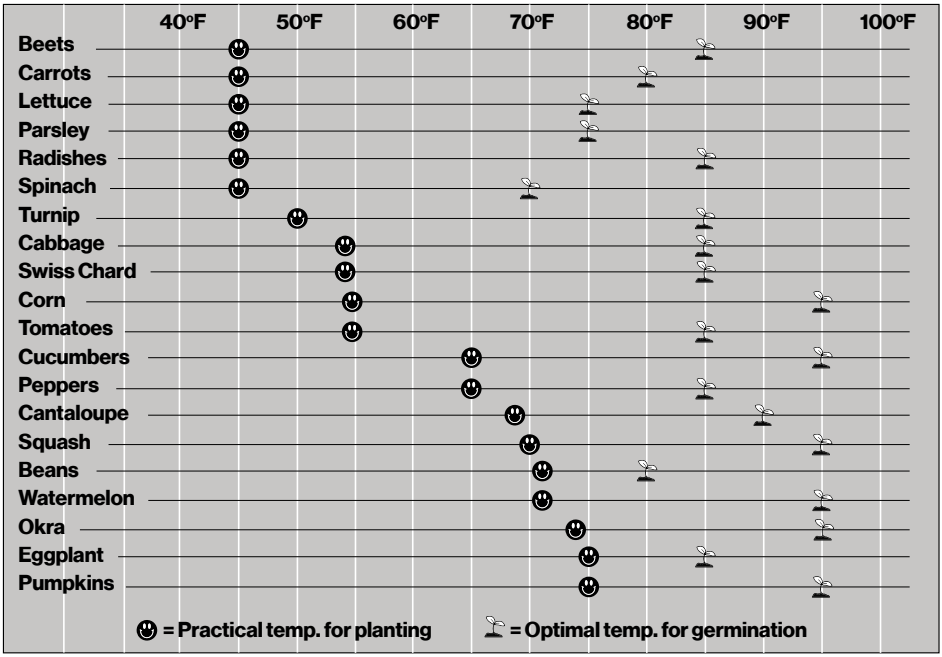
Type of Animal Manure	N	P[2]	K	Moisture, percent	Weight, lb/cu yard
	lb per ton as is [1,2]				
Chicken with litter	73	28	55	30	900
Laying hen	37	25	39	60	1,400
Sheep	18	4.0	29	72	1,400
Rabbit	15	4.2	12	75	1,400
Beef	12	2.6	14	77	1,400
Horse	9	2.6	13	63	1,400
Dry stack dairy	9	1.8	16	65	1,400
Separated dairy soilds[3]	5	0.9	2.4	81	1,100

[1] Manure analyses are usually reported in terms of P and K, while fertilizer labels are phosphate (P_2O_5) and potash (K_2O). To convert from P to P_2O_5, multiply P by 2.3. To convert from K to K_2O, multply K by 1.2.

[2] These values assume that manure has been protected from rain.

[3] Separated dairy solids are produced when dairy manure is pumped over a screen, separating the soilds from the rest of the manure.

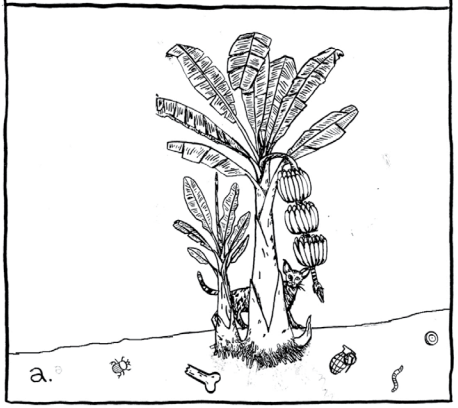
Soil Temperatures for Germination

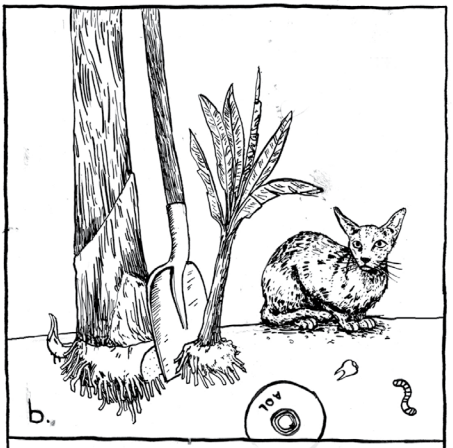


DESTITUTE DOLE

BANANA PROPAGATION

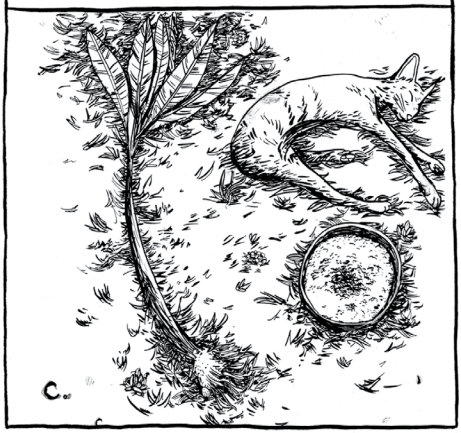
Cloning a banana plant is less of an operation then it sounds like. The banana is busy cloning itself anyway - left to its devices, one plant will form a circular clump, spreading year after year.

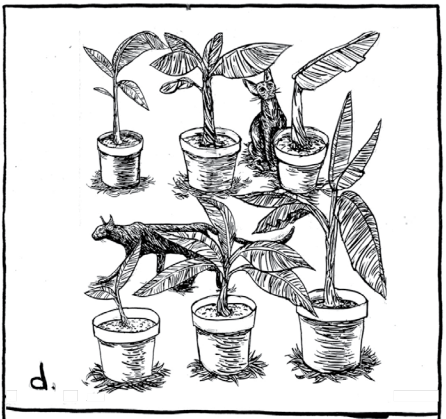




Baby bananas are called pups. A sharp shovel is used to seperate them from the larger clump.

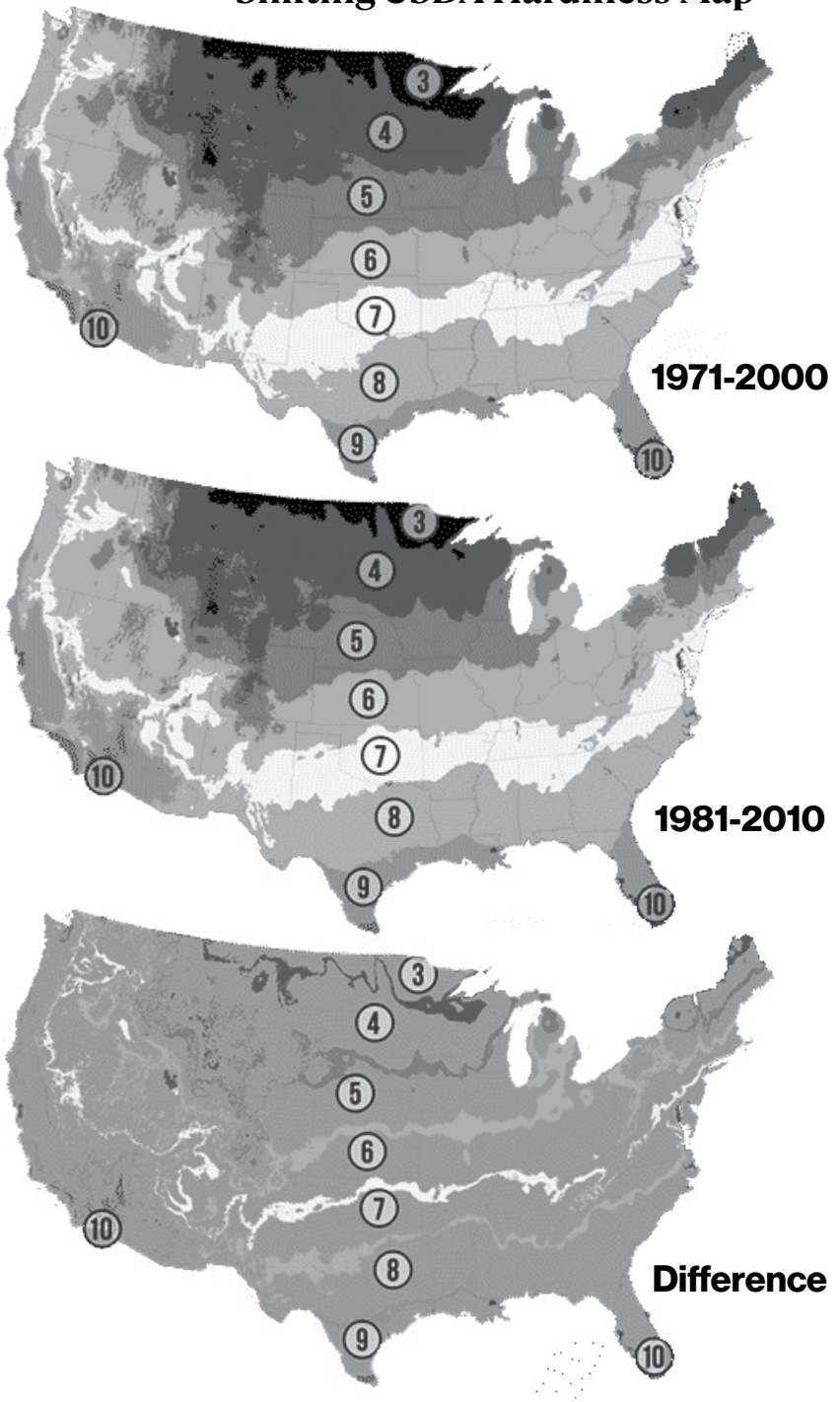
As long as one or two roots stay connected to the pup, success rates are very high.





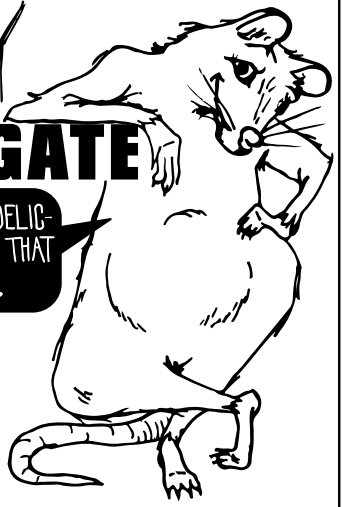
A little math: start with 10 banana plants. Take 5 clones or pups from each per year. At the end of year 5, you've got... 77,760 banana plants.

Shifting USDA Hardiness Map



Quick'n DIRTY

HOW TO: PROPAGATE



YOU KNOW THAT FIG TREE ACROSS TOWN WITH THE MOST DELICIOUS PURPLE FIGS? WHAT IF THERE COULD BE MORE OF THAT SAME DELICIOUS TREE!? GUESS WHAT, THERE CAN BE.

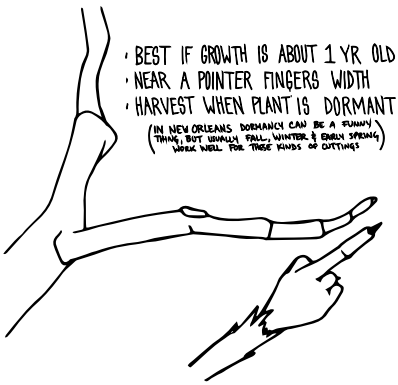
LET'S = PROPAGATE!

PROPAGATION IS A WAY PLANTS (AND OTHER ORGANISMS) INCREASE IN NUMBERS. LEARNING PROPAGATION ALLOWS US TO MAKE NEW PLANTS FROM A PLANT THAT IS ALREADY ADAPTED AND THRIVING IN A SPECIFIC ECOREGION. THERE ARE MANY DIFFERENT METHODS OF PROPAGATION, ONE WAY IS BY TAKING CUTTINGS.

THERE ARE TWO TYPES OF CUTTINGS THAT CAN BE HARVESTED FROM THE FIG TREE; HARDWOOD OR SOFTWOOD. WHILE BOTH SHOULD BE CUT BELOW A NODE, BETWEEN 6-10" IN LENGTH AND THE BRANCH SHOULD BE STIFF ENOUGH THAT IF BENT WILL SNAP. ONE IS HARVESTED IN A STAGE OF DORMANCY AND THE OTHER VIGOROUS GROWTH!

HARDWOOD

- BEST IF GROWTH IS ABOUT 1 YR OLD
- NEAR A POINTER FINGERS WIDTH
- HARVEST WHEN PLANT IS DORMANT (IN NEW ORLEANS DORMANCY CAN BE A FUNNY THING, BUT USUALLY FALL, WINTER & EARLY SPRING WORK WELL FOR THESE KINDS OF CUTTINGS)



SOFTWOOD

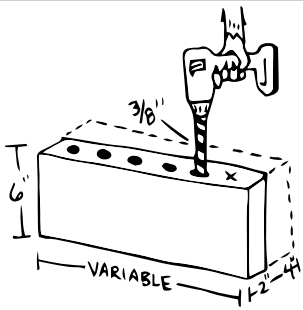
HARVEST FROM VIGOROUS NEW GROWTH IN THE SPRING (POSSIBLY SUMMER TOO IN NEW ORLEANS), BEST CUT IN MORNINGS WHEN PLANT IS FULL OF WATER.


NODES
JOINTS WHERE NEW GROWTH GROWS OUT OF!
IMPORTANT TO FIND TO INSURE NEW ROOT AND LEAF GROWTH!
6-10"
AFTER COLLECTING THE CUTTINGS PUT THEM INTO POTTED SOIL OR WATER AS SOON AS POSSIBLE, DON'T LET THEM DRY OUT. MAKE SURE MORE OF THE CUTTING IS BELOW THE SOIL. THIS WILL DEDICATE MORE AREA TO ROOT GROWTH AND KEEP THE PLANT FROM DRYING OUT. IT IS BEST TO HAVE BALANCED SUN AND SHADE, SO THEY DON'T DRY OUT OR ROT.
NODES
MAJORITY OF CUTTING BELOW SOIL
WHEN PROPAGATING IT IS ALSO ADVANTAGEOUS TO THINK ABOUT THE PLANT YOU ARE CUTTING FROM. START A CONVERSATION WITH WHOEVER LIVES THERE, MAYBE THE TREE HAS HISTORY! HAVE A CONVERSATION WITH THE TREE (ALOUD OR IN YOUR HEAD, WHATEVER FEELS BEST), LET IT KNOW YOU'D LIKE TO HARVEST CUTTINGS, BRING IT COMPOST OR MULCH, PROMISE TO TAKE CARE OF THE CUTTINGS AS BEST YOU CAN, LISTEN, THANK IT. IN BUILDING RELATIONSHIPS WITH PLANTS, WE DISRUPT AND DECONSTRUCT COLONIAL AND CAPITALISTIC ECOLOGY PRACTICES, WHICH IS IMPERATIVE!

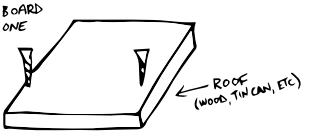
HOW TO: MASON BEE HIVES

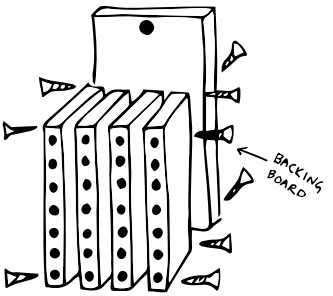
Quick'n DIRTY #2

There are 130 species of Mason bees (Osmia) out of the thousands of pollinators throughout North America. The Mason bee is part of the Apidae bee family, which also includes the most familiar pollinator the honey bee (Apis melifera). Unlike honey bees who are a collective social bee, in hives of tens of thousands, the Mason bee is solitary. They pollinate plants up to a 300 feet radius of where they nest and an individual Mason bee has much higher pollination rate than an individual honey bee due to the way they carry pollen, on their lower abdomen rather than on the backs of their legs. Mason bees nest in small holes most commonly in trees or logs that were already created by woodpeckers and insects. They forage throughout the warm months, mate with a male (who only lives for up to 2 weeks to mate then dies), gather about a pea size amount of pollen for each egg, lay the egg next to the pollen, find mud to build up a protective barrier (where the name mason comes from). She will do this in succession in about two tubes and lay about 15-20 eggs in her life span of 6 weeks, then dies. The baby bees pupate and are fully developed by the fall, hibernate through the winter then emerge from their coccoons in the spring. If you would like to invite more pollinators to your home but might not want or have space to have a full fledged bee hive, making Mason bee habitats are a great low maintenance way! There are many different ways to make a Mason bee hive, here are two examples...

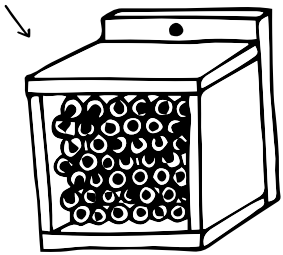


WITH A 3/8" DRILL BIT, DRILL HOLES ON 2" OR 4" FACE OF 2x6" OR 4x6" PIECES OF WOOD. SPACE HOLES 3/8" APART. DRILL HOLES ALL THE WAY THROUGH. SCREW TOGETHER ALL 2x6" BLOCKS. SCREW ON A BACKING BOARD THAT IS TALLER THAN BLOCKS FOR ONE WAY TO HANG OR MOUNT.





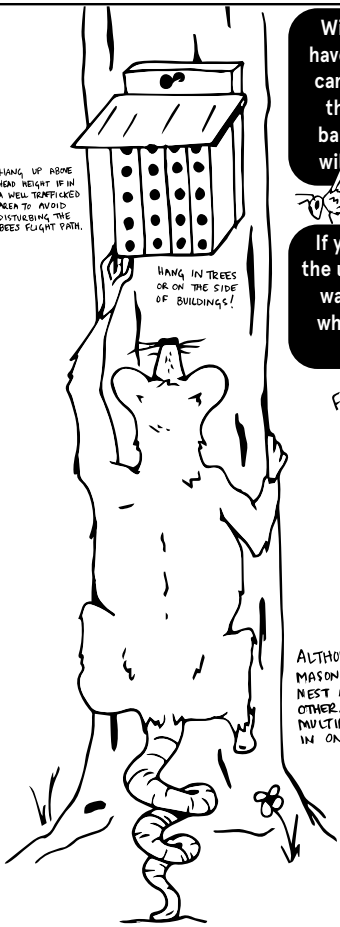
ANOTHER METHOD USING PAPER STRAWS OR HOLLOW BAMBOO (DONT USE PLASTIC, IT WONT BREATHE!). STRAWS OR BAMBOO CUTTINGS CAN BE BUNDLED INTO A WOODEN FRAME.

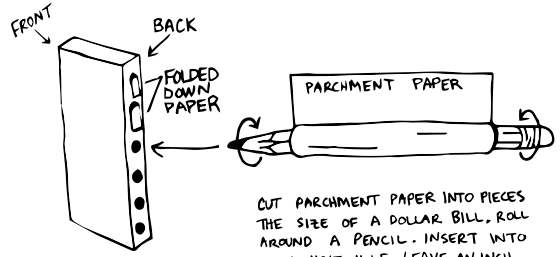


IF YOU DONT MAKE A ROOF BE SURE TO HANG THE HIVE UNDER AN AWNING, TO PROTECT IT FROM MOISTURE THAT MAY CREATE AN ENVIRONMENT AT RISK OF MOLD, FUNGUS & PESTS.

With any Mason bee hive method, if it appears that the holes have been built up and bees are no longer nesting in them, they can be cleaned out for future Mason bee inhabitants. Take off the backing piece, drill out the mud, or take out straws and bamboo cuttings, clean them or replace with fresh ones. This will also help protect the bees from mites and fungal threats.

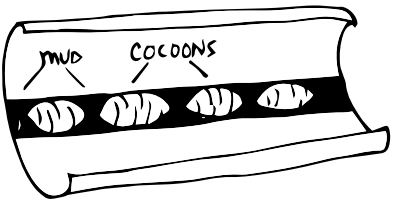
If you'd like to get even nerdier with Mason bees... and due to the unpredictability of an ever quickly changing climate, another way to insure that the bees are emerging from their cocoons when there is an abundant food source, is to line the wooden holes (or bamboo cuttings) with paper.





CUT PARCHMENT PAPER INTO PIECES THE SIZE OF A DOLLAR BILL, ROLL AROUND A PENCIL. INSERT INTO EACH HIVE HOLE. LEAVE AN INCH HANGING OUT THE BACK & FOLD OVER. (THIS IS WHERE YOU WILL PULL IT OUT WHEN IT GETS COLD).

ALTHOUGH SOLITARY MASON BEES LIKE TO NEST NEXT TO EACH OTHER. CAN HANG MULTIPLE HIVE BOXES IN ONE AREA.



Then, In the winter after all the eggs are laid and cocoons have developed open the back of hive. Pull out each roll of paper. Open and collect the healthy cocoons. Place in a breathable cardboard box and place in a refrigerator. Leave in the fridge until there is no fear of another cold snap. When warm, Make a hole in the side of the cardboard box and place in a shaded, dry area. The bees will emerge from their cocoons within the box, leave from the opening, begin foraging and start their life cycle!

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It's Going Down *is a digital community center for anarchist, anti-fascist, autonomous anti-capitalist and anti-colonial movements across so-called North America.*

itsgoingdown.org

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A podcast resource for tree crops, perennial vegetables and insights from the people who breed them.

Propagandabytheseed.com

Poor Prole's Almanac is an ecoagriculture podcast focused on building community resiliency through developing an ecological framework for envisioning a better world.

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CLASSIFIEDS

When the one-way tickets to Mars go on sale, are you busy shopping for seeds instead?

Then EARTHBOUND TV is for you!

A cooperatively run youtube channel by farmers, gardeners, ranchers, weavers, tinkerers, carpenters and cooks sharing skills, experiences, frameworks and how-to's for communal autonomy.

tinyurl.com/earthboundtv

NDN Bayou Food Forest is a project to transform 11 acres of former monoculture in SW Louisiana into a site of intense food production and perennial & fruit tree propagation.

Sometimes seeking volunteers, if interested, please email Indianbayoufarm@protonmail.com.

Useful skills include: gardening, carpentry, electrical, irrigration, cooking, photo/video, art/design.

Insta: **@bayou_foodforest**

Earthbound?

We're cultivating crews in the PNW.
Summer intensives and/or
long-term worker collective members,

cedarmoon.us/earthbound

CEDAR MOON

Cedar Moon tends unsettling earth
with the Sacred Lands Alliance & TLC Farm,
on Atfalati and Clackamas lands: Portland, OR

Further Reading

History/Analysis

Black Reconstruction in America, by W. E. B. Du Bois, 1935

The Black Jacobins, by C. L. R. James, 1938

Seeing like a State: How Certain Schemes to Improve the Human Condition Have Failed, by James C. Scott, 1999

Pobladoras, Indigenas, and the State: Conflict Over Women's Rights in Chile, by Patricia Richards, 2004

Dispersing Power: Social Movements as Anti-State Forces, by Raúl Zibechi, 2010

From Rebellion to Reform in Bolivia: Class Struggle, Indigenous Liberation, and the Politics of Evo Morales, by Jeffery R. Webber, 2011

Desert, by anonymous, 2011

An Indigenous Peoples' History of the United States, by Roxanne Dunbar-Ortiz, 2014

Dixie Be Damned: 300 Years of Insurrection in the American South, by Saralee Stafford, Neal Shirley, 2015

Revolution in Rojava: Democratic Autonomy and Women's Liberation in Syrian Kurdistan, by Michael Knapp, Anja Flach, Ercan Ayboga, 2016

Ramp Hollow: The Ordeal of Appalachia, by Steven Stoll, 2017

Freedom Farmers: Agricultural Resistance and the Black Freedom Movement, by Monica M. White, 2018

Late Victorian Holocausts: El Niño Famines and the Making of the Third World, by Mike Davis, 2001

Sentient Lands: Indigeneity, Property, and Political Imagination in Neoliberal Chile, by Piergiorgio Di Giminiani, 2018

Katrina: A History, 1915–2015, by Andy Horowitz, 2020

The Dawn of Everything: A New History of Humanity, by David Graeber and David Wengrow, 2021

Culture and Ethnography

Earth Beings: Ecologies of Practice Across Andean Worlds, by Marisol de la Cadena, 2015

The Mushroom at the End of the World: On the Possibility of Life in Capitalist Ruins, by Anna Lowenhaupt Tsing, 2015

Vital Decompositions, by Kristina M Lyons, 2020

Practical

Edible Forest Gardens, vols. 1 & 2, by Dave Jacke and Eric Toensmeier, 2005

Trees of Power: Ten Essential Arboreal Allies, by Akiva Silver, 2019

Organic Mushroom Farming and Mycoremediation, by Tradd Cotter, 2015

Radical Mycology: A Treatise on Seeing & Working with Fungi, by Peter McCoy, 2016

We appreciate everyone who contributed to make this third issue of the Earthbound Farmer's Almanac possible. We hope to be back next year so if you're reading this and excited to contribute to future issues, send pitches to lobeliacommons@protonmail.com with "2024 Almanac:" and the pitch topic in the subject by **July 31st, 2023.**

If you'd like to learn more about Lobelia Commons and the projects we're working on, check out @lobeliacommons on instagram and twitter.

2023

EARTHBOUND
FARMER'S ALMANAC

This is a farmer's almanac for the end of a world and the beginning of many others.

The evolving crises all around us, and the attempts by the ultra-rich to flee the Earth entirely, make clear that none of the reigning institutions will make any effort toward our survival. But there are alternatives to the antics of hoarding preppers and consumerist gimmicks. As has always been so, reconsidering how we get our water, foods, and medicines will determine our ability to continually resist, subvert, and create.

The way forward, out of this mess, will mean charting a new course informed with ancestral knowledges developed through generations of struggle against land theft, exploitation, and enslavement. We will have to work together—constructing and re-constructing the ability to sustain and care for each other. This almanac is for developing the necessary knowledge, infrastructure and practices.

The old farmer's almanac presented conventional wisdom. This almanac is a place for experimentation, for finding new forms and retrofitting old ones, for sharing stories of lived efforts toward a collective exit from this colonial nightmare, this separateness from the Earth.

Sunrise/Sunset and Moon Phases
Historic Dates
DIY Builds
Grafting Lessons
Recipes
Plant Guides
Correspondences
Climate Weirdings