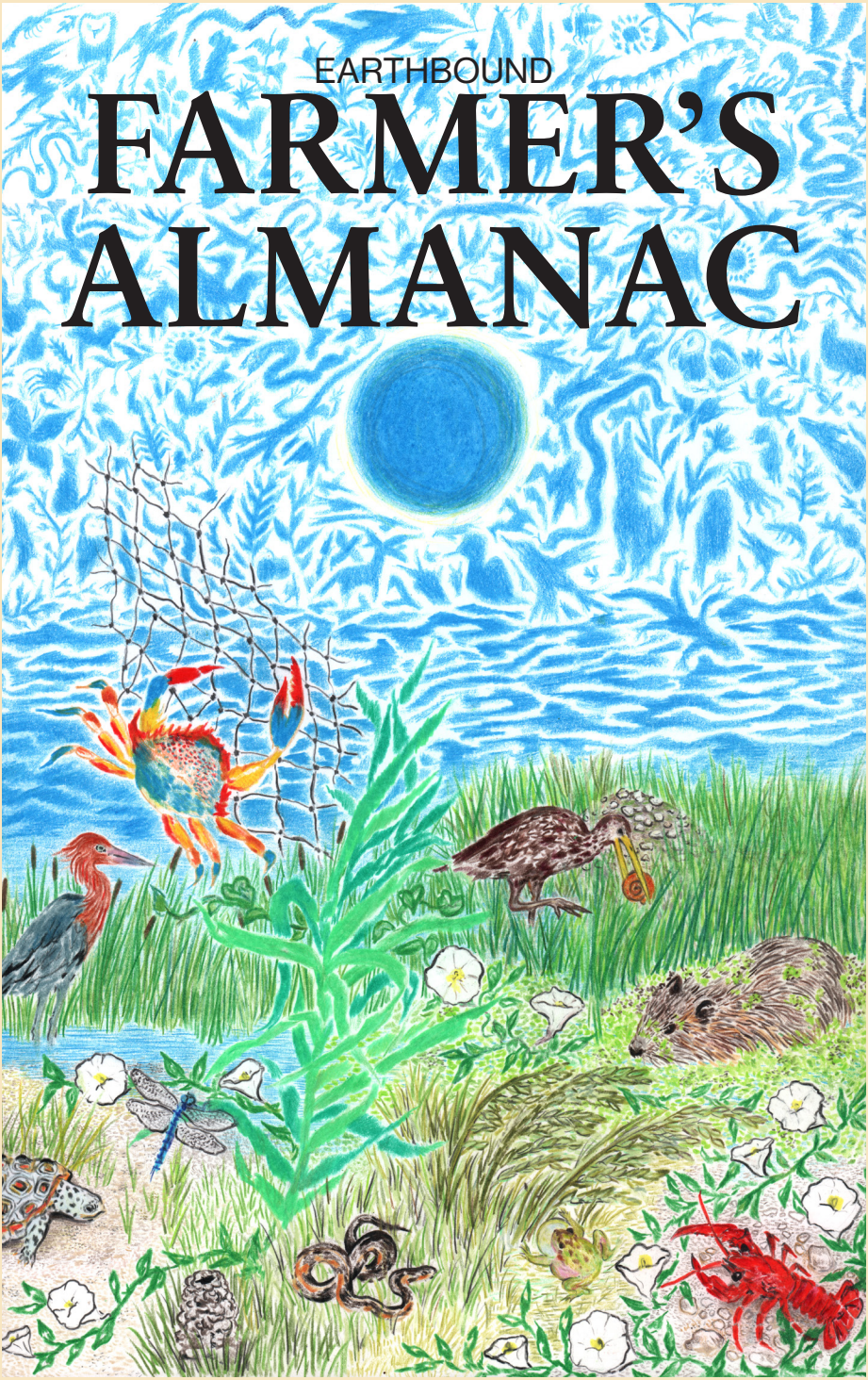
EARTHBOUND

FARMER'S ALMANAC



Perennial Collards

Palestine Seed Library

Beyond Plant Nativism

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Earthbound Farmer's Almanac

2024

Lobelia Commons

Cover illustration by Beau Romeo
Layout and design by sinking city @SinkCityComms

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

Note from the Editorial Collective

In April of 2023 an ancient lake called Tulare reappeared in so-called Southern California. Once home to the largest body of freshwater west of the Mississippi River, the basin had in the last hundred and fifty years been drained to a dusty bowl, its waters captured to irrigate the industrial agricultural projects stretching from it in every direction.

And then, early spring brought two inches of rain in twenty-four hours to this otherwise dry landscape and inundated the farmlands. Levees breached, crops were washed away, train tracks were flooded. A lake appeared overnight in the once bone-dry basin. Within days, riparian bird species started to arrive and feed at the lake's edge. Within weeks, wildflowers were blooming along its shores.

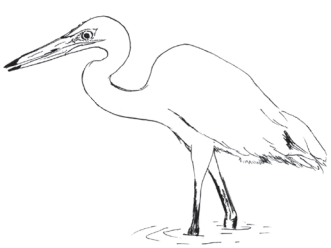
The memory of the Earth is longer than individuals or empires. What once was in that place exploded open overnight—but not the same as before. The decades of spoiling the lakebed leeched poisons into the water. A massive state-mobilized diversion effort to protect nearby prisons and capital has prevented the waters from reaching their historical boundaries. Meanwhile, the land barons extract still deeper from the aquifers, accelerating subsidence and the obsolescence of their futile levees. The

lake will have to find a new way of being, which will probably take years.

In these days of continuous upheaval, we are borne forward dually by retching hope and a wounded fury. It is hard not to delight in the colonial project being forced to confront its absurdity, though these days are also stained by the fear-driven violence unleashed by those hegemonic forces when challenged. We can hope for a cataclysm to wash them away and resurrect the worlds we've lost. We can also become the floodwaters and hasten this renewal, and yet we can't ever get back what was taken from us. This has been and will continue to be a period of great suffering. It is important to not dilute this truth, to not anaesthetize ourselves against feeling it. We continously conjure dignity for ourselves and others and the world by staying in it. We honor the pain by not just surviving it, but being transformed by it.

Grief brings us back to the earth. It reminds us where we are and what we have always been part of. Grief reminds us that we will not ever be fully complete or pristine as individuals. Instead, we are like the strands of a web, shining most brightly in the sun after they've been torn apart. Loss shows us how much strength is imbued in the relationships, systems, and belongings we discover ourselves inside of over and over again.

In that spirit, on this particularly dim turning over of the year, we offer this missive to share—hopefully as far and wide as from whence it came, if not further. We offer these doses of joy, care, inspiration and connection as an antidote to the persistent forces of alienation and disintegration. Thanks to all who helped bring it into existence for another trip around the sun.



2024

Photo (top) by Laura Borealis

Earthbound Farmer's Almanac

2024

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 have a strictly 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.


HEIRLOOM
IBRARY

Palestine Heirloom Seed Library

Part of the Fertile Crescent, Palestine has been considered one of the world's centers of diversity, particularly for wheat and barley. This biodiversity, which has kept us alive for millennia, is being threatened by policies that target farmers and force them to give up their heirloom seeds and adopt new varieties. Heirlooms, which have been carefully selected by our ancestors throughout thousands of years of research and imagination, form one of the last strongholds of resistance to the privatization of our life source: the seed. These seeds carry the DNA of our survival against a violent background that is seen across the hills and valleys through settlement and chemical input expansions.

Heirloom seeds also tell us stories, connect us to our ancestral roots, remind us of meals our families once made at special times of the year. The Palestine Heirloom Seed Library (PHSL) is an attempt to recover these ancient seeds and their stories and put them back into people's hands. The PHSL is an interactive art and agriculture project that aims to provide a conversation for people to exchange seeds and knowledge, and to tell the stories of food and agriculture that may have been buried away and waiting to sprout like a seed. It is also a place where visitors may feel inspired by the seed as a subversive rebel, of and for the people, traveling across borders and checkpoints to defy the violence of the landscape while reclaiming life and presence.

Like most farmers around the world, Palestinian farmers are facing the dangers of agribusiness, corporate seed, land dominance along with political violence. But many of these farmers are the heroes who have been safeguarding these precious seeds and the knowledge these seeds carry. Palestinian heirloom seed varieties are under threat; many

have gone extinct. These seeds that have been passed down to us over the centuries carry in their genes the stories and the spirits of the Palestinian indigenous ancestors. Aside from their cultural significance, these seeds carry options for our future survival as we face climate change and the erosion of agrobiodiversity worldwide. As such, it is urgent that we save and propagate them.

Founded by Vivien Sansour, the PHSL and its Traveling Kitchen project seek to preserve and promote heritage and threatened seed varieties, traditional Palestinian farming practices, and the cultural stories and identities associated with them. Based in the village of Battir, a UNESCO World Heritage site outside Bethlehem, the PHSL also serves as a space for collaborations with artists, poets, writers, journalists, and other members to showcase and promote their talents and work. Working closely with farmers, Sansour has identified key seed varieties and food crops that are threatened with extinction and would provide the best opportunities to inspire local farmers and community members to actively preserve their bioculture and recuperate their local landscape. The PHSL is part of the global conversation about biocultural heritage. Its Traveling Kitchen is a mobile venue for social engagement in different communities, promoting cultural preservation through food choices.

Heirloom seeds are available for purchase at disarmingdesign.com/product/heirloom-seeds/
Writing and photos republished from viviensansour.com with the permission of the Palestine Heirloom Seed Library

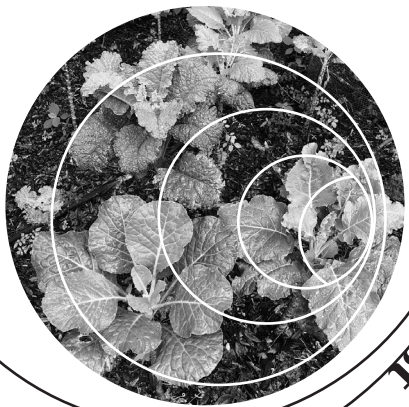
This summer the clay cracked like it sometimes does, but then the rain just kept missing us, week after week, and the cracks just kept widening and widening until they were 4 ft deep in places. Black widow spiders filled the cracks with their webs and hung their egg sacks in the lower reaches. Spent a bunch on watering and lost a few fruit trees at the margins. Along with watering, this seems to have made for a good fig year, which develop rust and other issues if it's really wet here. The ponds are all oases of wildlife and green plants despite the water level dropping two feet or more. We intend to dig our largest one yet next year, as well as planting over an acre of willows & other native swamp trees this winter.

(Gulf Coast)

Pretty dry here! And El Niño means less rainfall for us than usual, so that could put us in a major deficit by next summer's dry season. Seattle's reservoirs are still not at "low" levels, but well below normal.

(PNW)

Developing Perennial Collards for the Gulf Coast



A decentralized breeding project to adapt perennial brassicas to Gulf Coast summers

Craig Hepworth

Collards are extremely nutritious food plants, deeply embedded in the culture and cuisine of the Gulf Coast region. Like other cruciferous vegetables (that is, vegetables in the cabbage family), they contain compounds linked to reduced incidence of a number of chronic diseases, including some types of cancer.[1] They grow well in home gardens, but a major limitation is that most varieties are annual or biennial (dying after 1-2 years), so they need to be replanted regularly. To maintain a supply from a garden, you need to keep up a regular schedule of starting seeds or buying starts, which requires time and/or money.

Excitingly, there are perennial forms of these plants, known as "tree collards" and "tree kales." They can live for many years in climates like California or Britain and grow into multi-branched shrubs that are propagated by cuttings. A few plantings in the Southeast indicate that they grow well here during the cooler months, but can struggle and often succumb to the heat, humidity, insects and diseases of Gulf Coast summers. But when they do survive summer, they burst out lots of delicious leafy greens once the weather cools in fall. With some breeding and selection work, we should be able to develop varieties better adapted to the Southeastern climate.

In developing these collard/kale varieties, we'd be selecting plants that would:

- Handle the heat/humidity and diseases of Gulf Coast summers
- Be perennial, continuing to live after blooming and making seed (or not blooming at all)
- Have a branching habit and root from cuttings, so people can easily share starts with friends and neighbors.

That's what I'm working on, and I encourage others to work on it also. This plant breeding project is well suited for a collaborative, decentralized network of backyard gardeners. To understand how it might work, here's a quick overview of the species and its reproductive biology, as I understand it.

What is a collard: history & biology

Brassica oleracea is a plant species native to the Mediterranean area and in its wild form looked something like a collard plant. Humans have selected the species into lots of different varieties, including collards, kale, broccoli, cauliflower, cabbage, brussels sprouts and kohlrabi. These vegetable varieties look very different, but they're all the same species and can easily interbreed.

In the Gulf South, collards grow from autumn through the cool months, surviving mild winter freezes. Exposure to those winter low

temperatures provides the physiological trigger for the plant to flower and produce seed the following spring. In most collard varieties, the flowering plant devotes all its energy and resources to seed production, dying in the process of making a big batch of seeds for the next generation. However, some forms have a different genetic strategy—they split their resources, producing a few flowers, while at the same time maintaining vegetative growth, so the plant can make some seed and also continue to grow as a perennial. These are the tree kales and tree collards.

Even varieties of collards and kale that are annual or biennial in most parts of North America will, if planted in a region with much milder winters, never get a the seasonal trigger to flower and set seed and so will keep growing vegetatively as perennials. In my area of North Florida, I've heard reports of collard plants that have survived as long as five years, producing food all that time, never flowering. These weren't varieties selected to be perennial—they were just regular collards, planted in an area south of where that variety normally would grow as an annual seed producing plant. Usually they were growing in semi shade, which probably helped them to survive the Florida summers.

Getting started: resources & growers

There are a few ways a gardener can begin working on breeding perennial collards for the Gulf Coast. You can plant seeds from some promising breeding programs, you can root cuttings from existing plants, or you can purchase plants from nurseries of existing perennial varieties (many of which have not been tried yet in the humid Southeast). Or you can look for existing perennial plants already growing in the area. Here are suggested sources:

- Chris Homanics has been selecting perennial collard/kale plants in Oregon for over a decade and has developed a genetically diverse population. I and others have planted out seed from this mix in North Florida. In partial shade location some promising individual plants have survived summer. A number of sources offer the seed, including the Experimental Farm Network. Search for "Homesteader's Kaleidoscopic Perennial Kale."
- Project Tree Collard in California offers seed, cuttings and plants from a number of tree collard varieties. I've grown plants from their "Mixed Tree Collard" seeds in a partial shade location here in North Florida and got

a high percentage of plants that survived summer. projecttreecollard.org

- Planting Justice, also in California, is a nonprofit with an online store, offering plants and seeds of many types of perennial collards and kale. plantingjustice.org
- Ultracross Collards Project has gathered numerous heirloom collard varieties and let them all interbreed, creating a genetically diverse population. They weren't selecting for perennialism, but in mild winter regions the plants might not get enough seasonal trigger to flower and set seed, allowing them to grow perennially. I've heard a report of seed-grown plants from this project have lasted multiple years in northern Georgia. A number of sources offer the seeds, search for "Ultracross collards."
- Other vendors online, especially on Ebay and Etsy, sometimes offer seeds and cuttings of perennial kale/collards. One variety to keep an eye out for is the extremely rare "Gullah tree collard," developed by people in the Gullah community in South Carolina, which would be an exciting variety to track down and include in this effort. There's also a perennial form of collard selected in Zimbabwe and Zambia called chomolia. Experimentation in Florida indicates it often survives summer, especially if growing in partial shade. At the time of this writing, Cody Cove Farm sometimes offers cuttings of chomolia, but only to addresses within Florida.

Another approach is to look for collard and kale plants already growing in the region which are functionally perennial, due to the lack of sufficient winter cold to trigger flowering. The end of summer is a good time to look for plants that survived the heat—ask around among gardeners. If a plant has a few branches, it might be possible to propagate it by cuttings. (Of course, get permission from the gardener before snipping pieces off.)

How to propagate perennial collards/kales

To root a cutting, cut off a pencil diameter or larger branch, snip off all the leaves except a few small ones at the tip, and cut those leaves in half. Stick the cutting in a pot of well-draining potting soil placed in a location that gets early morning sun, but shade or lightly dappled sun in midday. Keep the soil moist. If it wilts excessively, tie a clear plastic bag around the whole pot and cutting. If all goes well, in a few weeks it will be putting out new leaves, and roots will be coming out the holes in the bottom of the pot.

Propagating perennial brassicas. On the left, fresh tree collard cuttings on Oct 21, 2023. On the right, the same cuttings 22 days later, on Nov 11.

Collards and kale grow best during the cool months. Fall through winter is a good time to start them in the Gulf Coast region, so they'll be big and husky when summer arrives. In my location in North Florida I've found a much better summer survival rate among plants grown in a morning-sun, afternoon-shade location rather than in full sun. But they do need some sun to grow, so don't plant in deep shade. Planting underneath a deciduous tree naturally gives plants part shade in summer, and nearly full sun in winter.

The strategies for working with clonal material (rooted cuttings) vs. seedlings are a bit different. If you're able to get a rooted cutting of an

existing perennial collard plant, the strategy first is to grow it and multiply it by taking lots more cuttings. Once you've got a bunch of rooted cuttings of that individual, try planting them out in a variety of conditions, with varying soil quality, irrigation, and sun exposure, to determine the limits of what that clone can handle. And share cuttings with other experimenters!

On the other hand, when you grow plants from seed you're trying to observe the genetic differences among them, especially in terms of how well they survive summer. So you should try to give a batch of seedling plants identical conditions. Because this is a selection project for summer survival, you actually want some of the seedlings to die out over summer. Among the survivors, look for plants that show a branching habit so you can take cuttings. Then, follow the strategy outlined in the previous paragraph for working with clonal material.

If we want to do further rounds of breeding using clones which don't usually flower in our area due to lack of sufficient winter, we could team up with gardeners further north. We would send them cuttings, those experimenters would grow out the plants, letting them flower and cross pollinate, and then send us the resulting seed for more selection under our growing conditions. Alternately, if anyone has access to a walk-in cooler, you could store potted plants in there for a while, providing a chill period to trigger flowering.

Collaboration is key here, so be sure to post about your results online. Let's all keep in touch about how our plants are doing, so we can share results and hopefully start sharing seeds and cuttings of promising varieties. On social media, here are some suggested hashtags: #treecollard, #treekale, #gulfcoasttreecollard, #subtropicaltreecollard (You can reach me at floridafruitgeek.com/contact).

Together, we can work to develop regionally adapted perennial collard varieties that will provide abundant, high-quality food to households in our area for many years with minimal effort, outside of the cash economy.

1 Source: "Bioactive Compounds in Brassicaceae Vegetables with a Role in the Prevention of Chronic Diseases" https://www.ncbi.nlm.nih.gov/

Denver seems to be repeating a cycle of above average precipitation in the spring and summer, but bone dry late summer/fall/winter. Very little moisture here since August. Far less drought in the state than previous years tho. We didn't get near as much snow in our Rockies as Utah's, but still above average. We're still reeling from the Marshall Fire of 2021, which destroyed over 1,000 structures, mostly homes between Boulder and Denver. A few colleagues of mine lost their homes and are still battling with insurance. Wet spring/summer increases biomass, dry fall/winter turns it to fuel. Add in super windy winter days, like 100 mph for the Marshall Fire, and shit's likely to burn fast. A similar pattern is occurring in the northwest as far as I've heard from friends but with opposite seasons.

Grief Brownies

by Cate Alber of *Homebody Herbs*

Yield: 1 tray of brownies

Medicine doesn't have to taste bad! These brownies include rose, reishi, oats and chocolate to soothe broken hearts, nourish frazzled nervous systems and lift the spirit. The original recipe is gluten free, egg free and dairy free, but for sure sub in glutinous, eggy and buttery ingredients as you so desire. They're great both ways.

Ingredients

3 tbsp ground flax + 5 tbsp water (or 2 eggs)

1/2 cup ground oats/oat flour

1/2 cup cocoa powder

1/4 cup gluten-free flour (or all purpose flour)

1.5 tsp baking powder

1/2 tsp salt

2 tbsp reishi powder

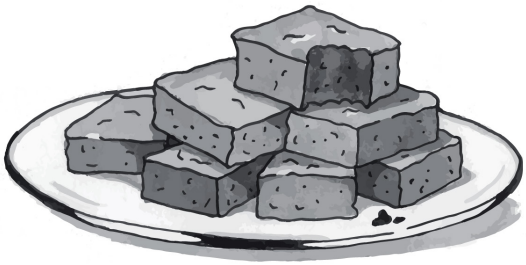
2 tbsp rose petals, crumbled

1/3 cup coconut oil, melted and cooled slightly (or butter, melted and cooled slightly or avocado oil)

3/4 cup rose-infused honey (see below) or maple syrup

1 tbsp rose water

1 cup chocolate chips



Rose Honey Instructions

Option 1 - using heat:

1) Use ~4 tbsp (¼ cup packed) crumbled dry rose petals per cup of honey

2) Combine roses and honey in a jar w/ a lid, poke around w/ a chopstick to stir

3) Place the sealed jar into a crock pot filled with enough water to reach above the roses and honey.

4) Keep the crockpot on the "low" or "keep warm" setting for 6-12 hours, turning the jar over every few hours.

5) Strain warm infused honey through cheesecloth or a fine mesh strainer

*If you don't have a crockpot, you could do this in a big pot of water on the stove, set to its lowest setting.

Option 2 - using time:

1) Fill 1/4 jar with rose petals

2) Fill to 3/4 with honey

3) Poke around with a chopstick

4) Place on a plate, turning it upside down/right side up once per day

5) Let sit for 2-4 weeks

6) Heat slightly then strain through cheesecloth

Brownie Assembly

1. Preheat oven to 350° F and grease an 8x8 inch brownie pan

2. Combine ground flax seeds with water in a little bowl and allow to sit for ~10 minutes until gooey

3. Mix together dry ingredients (oats, cocoa powder, gluten-free flour, baking soda, salt, reishi powder and rose petals)

4. Mix wet ingredients (flax+water slurry, coconut oil, rose infused honey and rose water)

5. Stir dry ingredients into wet ingredients until combined

6. Stir in chocolate chips

7. Pour into the greased brownie pan

8. Bake for 30-40 minutes at 350° F or until the edges pull easily away from the sides of the pan and the center looks set (less gooey, less shiny).

9. Eat 'em hot, y'all

For the first time in almost 7 years, I drove back to south Florida where I grew up. I went back to the beach we used to have bonfires on in the middle of the night and it was completely gone. The road that runs along the water is called A1A and it's actually the second iteration of A1A. You can swim out to the first A1A pretty easily from the shoreline, and at low tide, you can walk out to it and it's only knee deep. The new shoreline is by far the closest I've ever seen it to the new A1A and I wonder how many A1As we'll go through.

(South Florida)

Still somewhat dry, but Utah and the Rocky Mountain region had record snowfall last winter that (in the southeast most noticeably) boosted a bunch of nonnative species like saltlover and Russian thistle. It seems like the melon crops were less prolific this year. Lake Powell rose a bit but is still pretty low.

(Rockies/high desert)

Reduction linocut by Luke Koeferl

Beyond Plant Nativism

Toward an earthbound ethics
of plant migration

Sweet Potato

"Everything is good for something. Creator do not make nothing bad."

– Peggy Hemmingway, Anishnaabe traditional medicine teacher, discussing introduced plants (from "Anishnaabe Aki: an indigenous perspective on the global threat of invasive species")

Which plants we choose to cultivate, and those we choose to control or destroy in ecosystems we manage, is both an ethical and strategic question for which the stakes, in 2024, are extremely high. Plant nativism is the use of the framework of native/non-native as a primary lens through which to determine the value of a particular plant species in making decisions about its cultivation or eradication. I present seven challenges to this framework that demonstrate its limitations and inability to address ecological crises. Additionally I present some alternative frameworks for understanding and addressing invasiveness.

But first, a few things I am *not* saying:

1. Invasive species don't cause problems, and should never be removed.

2. People shouldn't propagate or protect native plants.

3. Non-native plants should be carelessly introduced to new ecosystems.

A note on definitions: I use the term "invasiveness" to simply mean a species that spreads rapidly either due to introduction to a new ecosystem or in opportunistic response to changes in its native ecosystem. Invasive species are sometimes specifically defined as causing harm, but this harm is inconsistently defined—either as negatively impacting biodiversity, harming native species or causing economic loss. The

biodiversity criteria is most common but is often ignored in common usage. If you somehow remove all the non-native dandelions from your lawn, you haven't increased biodiversity, you've reduced it. Ecosystems are not zero-sum games. The spatial metaphor of "filling" a niche contributes to this confusion, as if there are limited spots and you need to get in line early. In reality, habitat-creating species like trees and beavers, whether or not they're native, construct niches for more species, some of whom construct yet more niches. There can also be unfilled niches which a newcomer can enter without displacing other species. This is especially true at the end of a long era of widespread habitat destruction and fragmentation by human infrastructure projects (in many cases these are the underlying problem of which invasive plants are only a symptom). We should learn from ecosystems' own processes of healing after these disturbances, in which native and non-native early successional plants work together to return life to the wastelands, constructing niches and inviting the next phase of succession. Addressing the biodiversity crisis requires being open to the novel successional pathways and assemblages that arise through these collaborations.

Complications

1. Climate change is shifting zones of habitability for all sorts of species and changing every ecosystem on Earth. This will create "refugee species" whose habitable ranges shift entirely away from their historical ranges. Essentially every species will see a shift in their potential zones of habitation, which they could adapt to via natural migration if the timescale of the change wasn't so drastic. The native/non-native framework cannot account for these changes and will result in increasingly incoherent responses if we insist on retaining it.

2. Migration. The history of life on Earth is one of constant movement. There are many examples of natural migrations causing ecological chaos, including both extinction and speciation, such as when tectonic activity pushed North and South America together about 10 million years ago. Big cats are thought to have been particularly disruptive upon their arrival in South America at this time. A framework which depends on static borders in order to assign value to partici-

pants in an ecosystem is thus at odds with the ever-changing nature of ecosystems. Simply put, every species was a newcomer to its home at some point. The lack of any clear metric for when or how a migratory species eventually becomes "native" shows the ultimate meaninglessness of these distinctions. The mango was first brought to Africa (as far as we know) in the ninth century AD. Is it native yet? Or forever non-native?

3. Humans vs. nature. The imagined separation of humans and nature is foundational to the framework of ecological nativism. Only migrations which aren't caused by humans are considered "natural" and any species that is stained by human contact is labeled "non-native," unnatural, worthy of destruction. This is the same perspective which displaces indigenous people to create "natural" preserves and which misunderstood precolonial ecosystems as being "wild" or "untouched." This fundamentally anti-human framework must tie itself into knots to avoid being openly anti-indigenous.[1] Either condemn every native people who've changed ecosystems by bringing plants or animals into new spaces—including Polynesians bringing pigs to new islands,[2] the many peoples who spread corn from its beginnings in southern Mexico all the way to Argentina and Canada, and those who spread fruit and nut trees throughout the Amazon[3] and Eastern North America—or arbitrarily decide that human-assisted migrations occurring before a certain point (1492, for example) were good but ones occurring af-

1 This claim may be surprising to many native plant advocates, who see themselves as allies to native people or opponents of colonization. In the absence of actual relationships of solidarity with native people, there is reason to be skeptical of this self-image. In fact, the odd conflation between native plants and native people common in these circles bears a certain resemblance to xenophobic World War II era cartoons and newspaper articles that depicted Japanese people as invasive Japanese Beetles and other insects (see, e.g., Biotic borders: Transpacific Plant and Insect Migration and the Rise of Anti-Asian Racism in America, 1890–1950 by Jeannie N. Shinozuka). While it is often presented in a self-effacing way by white people, the similar conflation of European colonizers and the plants they introduced mostly serves to displace settler guilt onto innocent plants, with eradication of non-native plants becoming a way to morally cleanse oneself.

2 Horsburgh, K. A., Gosling, A. L., Cochrane, E. E., Kirch, P. V., Swift, J. A., & McCoy, M. D. (2022). Origins of Polynesian pigs revealed by mitochondrial whole genome ancient DNA. Animals, 12(18), 2469.

3 Maezumi, S.Y., Alves, D., Robinson, M. et al. The legacy of 4,500 years of polyculture agroforestry in the eastern Amazon. Nature Plants 4, 540–547 (2018).

ter are bad. The latter perspective is probably the most prevalent in the U.S.—though it is probably more accurate to say that most plant nativists simply ignore pre-Colombian ecosystem changes by humans altogether.

4. Mutualism. Plant nativism tends to assume that a non-native plant will necessarily cause damage to other species while downplaying the possibility of mutually beneficial interactions. The tendency to emphasize competition and ignore cooperation is a perennial problem in masculinist western ecology. While it's true that many symbiotic pairings like those of specialist pollinators and their host plants can take a long time to develop, these are far from the only examples of mutualism. Many of the mutually beneficial interactions plants have with other plants, animals and insects are nonspecific enough that wholly novel mutualisms occur spontaneously when a new plant joins an ecosystem. Birds in North America love to eat figs and other non-native fruits. Birds plant more non-native and hybrid mulberries than any human forest gardener could dream of, feasting on the fruits as readily as they do on native mulberries and spreading seeds that will feed future bird generations. Tree frogs the world over like to perch on banana leaves. As you read this, non-native trees are cycling carbon into the soil, exuding sugars which feed soil life, and providing shade and habitat for many creatures.

5. Food Autonomy. In order to overthrow the industrial food system before it collapses from its own contradictions and plunges us all into famine, we need to implement alternate systems which can actually feed ten billion people. It is hard to imagine how this would be possible if everyone's diets were limited to whatever historically grew in their region,[4] or even how such limitations could be enforced aside from naked authoritarianism.

4 The typical plant nativist response is that indigenous people did survive on native crops, sometimes at considerable population densities. Setting aside plants which were modified by ancient people and introduced to wider ranges, this is basically true, but the damage done since then by habitat destruction, reduction in prey animal populations, disease and now climate change cannot be hand-waved away. Despite the massive depopulation of American chestnut trees due to blight, for example, many plant nativists oppose the planting of blight resistant non-native hybrid chestnuts which could fill this empty niche and feed millions.

6. Diaspora. What do we make of the efforts of various peoples, forced into migration by upheaval, catastrophe and direct violence, to bring with them some seeds, some living fragments of the place-based culture they're leaving behind but also carrying with them? Strictly planting natives means rejecting Black diasporic crops like watermelon, okra and peanuts. If we criticize people for planting non-natives, we're at odds with any immigrants who want to plant their own culturally significant crops and fruit trees.

A few native landscaping trees ready to be planted at Cop City after 85+ acres were clearcut. Source: Atlanta Police Department Press Release, Dec. 2023

7. Devaluation. Advocates of plant nativism should be alarmed by how readily their framework is taken up by developers to justify ecocidal projects. For example, the City of Atlanta has repeatedly argued that it's okay to destroy hundreds of acres of forest to build the controversial police training center known as Cop City, claiming that the land "is overwhelmingly dominated by invasive species like brush, weeds, vines and softwood trees" and going so far as to deny that it's a forest at all. This devaluation of living beings is a common feature of ecological nativism, finding its most dramatic expression in government extermination programs such as the recent proposal by the US Fish & Wildlife Service to shoot 400,000 barred owls in Oregon to prevent competition with native owls (instead of addressing underlying causes of habitat

destruction impacting both species).[5] Backyard plant nativists also engage in this devaluation, killing non-natives not just carelessly but often gleefully, uncritically, based only on the shallow category of nativeness rather than careful analysis of a plant's actual activity in an ecosystem. Those who believe in the sanctity of non-human life should be wary of potentially far-reaching consequences of this mode of ecological engagement.

These ideas are strongly influenced by various indigenous thinkers and land stewards. I emphasize this not as an appeal to authority, or to suggest that all indigenous people share this perspective, but simply because the strongest arguments have been put forward by indigenous people. For the purposes of this article, it's worth quoting at length a study conducted by and with Anishnaabe tradition bearers in so-called Michigan, USA:

> "Though there are no beliefs held in common among all indigenous people, it is a commonly held belief among many indigenous groups around the world that plants, animals and other beings are members of the extended family... We initiated our ethnographic project to understand how a group of people with such a 'kincentric' worldview make sense of introduced and 'invasive' species."

5 Wing, S. V. (2023, December 7). USFWS proposes shooting barred owls to save spotted owls. Oregon Public Broadcasting. https://www.opb.org/article/2023/11/30/barred-spotted-owl-shoot/

The study's authors distilled their findings into three main points:

1. "For Anishnaabe, plants and animals are family members and respected as elder siblings to humans. Anishnaabe regard plants, like all beings, as persons that assemble into nations more so than 'species.' The arrival of new plant nations is viewed by some Anishnaabe as a natural form of migration. Plants and animals move across the landscape, and mobility is not inherently good or bad, regardless of precipitating cause.

2. "Humans have an obligation to figure out the nature of our relationship with new arrivals, which includes careful consideration of their potential gifts and our reciprocal responsibilities. It is the responsibility of humans to determine the reason why new plants or animals have arrived in their territories, and actively determine the nature of

novel human–animal or human–plant relationships. When the purpose of new plants is not obvious, Anishnaabe plant specialists will turn to animals to help them understand how to interact with new species. Ethical obligations to discover a new arrival's proper use requires specific attention to the possibility of mutual benefit."

3. "While Anishnaabe describe invasive species as phenomenologically entangled with colonialism, the multiple ways Anishnaabe people think about invasive species provide alternatives to native-non-native binaries that dominate

much of the scientific discourse. We found that Anishnaabe tradition bearers are more concerned about an 'invasive land ethic' than the threats of invasive species. Elements of this invasive land ethic include the imposition of Euro-American property ownership regimes, 'command and control' forms of environmental management, and a worldview predicated on the separation of people from nature. Our interlocutors described the ways this invasive land ethic manifests in non-indigenous governmental and NGO approaches to invasive species management."[6]

Toward an earthbound ethics of plant migration

We need alternative frameworks for understanding the role of migrating species in the ecosystems we inhabit and the gardens we tend. This begins with affirming the sacredness of all life on Earth, our familial connection to all branches of the tree of life, and our deep ethical obligations to all these relatives. The values of solidarity, mutual aid and freedom of movement should be extended to all beings. In this catastrophic era, our task is not to resurrect an ancient ecosystem nor to "design" the ecosystems of the next century, but rather to support both endemic and migratory species as they adopt their own strategies

6 Reo, N.J., Ogden, L.A. Anishnaabe Aki: an indigenous perspective on the global threat of invasive species. Sustain Sci 13, 1443–1452 (2018).

for navigating climate change. The thriving ecosystems of this century will be complex communities including migrating plants and endemic plants, each evolving to meet an ever-changing situation that includes human habitation.

When an introduced species does need to be managed, we should avoid bureaucratic and state-led interventions which rely on professionalized labor and are essentially militaristic in their approach. The solution to this and many other ecological problems is inhabitation—as more people come into reciprocal relationship with their ecosystems, we will be better positioned to heal the Earth and foster coexistence between native and migratory species.

Getting to know the SCRUB JAY

Aphelocoma californica

Family: Corvidae

Apheles means "smooth" in greek; kome means "hair of the head" thus "smooth-haired," as in lacking a crest.

Scrub jays play an important role in distributing and planting acorns, leading many biologists to designate them as a keystone species.

Acorns are so connected to the oak-loving California jays that their bills are specially adapted for tugging, transporting, and opening them; their bills are deeper, stouter, and slightly more hooked than those of their pine nut eating counterparts in the Eastern Sierra.

#4

Quickn DIRTY HOW TO:

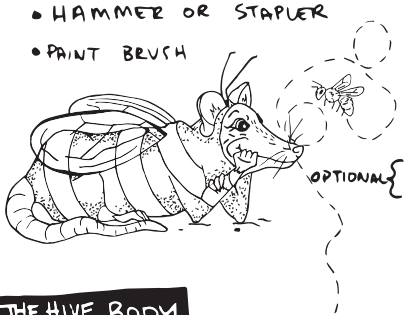
BUILD A BEE HIVE (WITH POWER TOOLS)

THESE INSTRUCTIONS ARE HOW TO CONSTRUCT A WIDE, SINGLE LEVEL, LANGSTROTH FRAME HIVE BOX. IT IS A HIVE THAT COMBINES THE LENGTH AND ACCESSIBILITY OF A TOP BAR HIVE WITH THE STRENGTH OF LANGSTROTH FRAMES. WONT HAVE TO LIFT ANY HEAVY SUPERS OFF STACKS OR HAVE ANY HEAVY COMB BREAK OFF TOP BARS. WITH THESE INSTRUCTIONS A 28 FRAME HIVE BOX CAN BE CONSTRUCTED FOR $85-100 WITH ALL NEW MATERIALS. AS LONG AS WIDTH & HEIGHT ARE CONSTANT THE LENGTH OF HIVE BOX CAN BE CUSTOMIZED TO MATERIALS AVAILABLE & DESIRED SIZE. LETS BEGIN!

WHAT YOU'LL NEED

TOOLS:

- TABLE SAW OR CIRCULAR SAW
- DRILL
- HAMMER OR STAPLER
- PAINT BRUSH



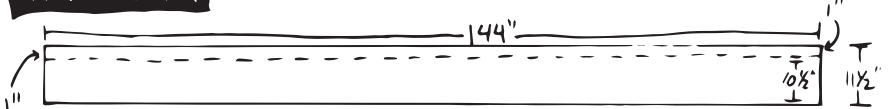
SUPPLIES:

- 2"X12"X12' BOARD
- 1 SHEET 15/32" PLYWOOD
- 3" SCREWS
- 1¼" SCREWS
- WOOD GLUE
- 2' ALUMINUM FLASHING OR TAR PAPER (ANY WATERPROOF MATERIAL TO COVER LID)
- NAILS OR STAPLES
- FRAMES (CAN ORDER FROM DADANT.COM OR MANLAKE.COM)

OPTIONAL:

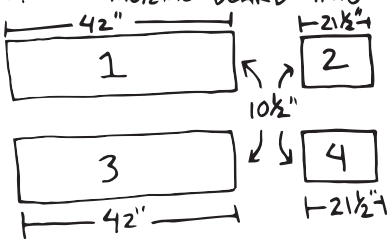
- CANVAS OR FABRIC (FOR INNER COVER)
- 2"x4"x8' PT BOARD (FOR LEGS)
- PAINT OR WOOD SEALER

THE HIVE BODY

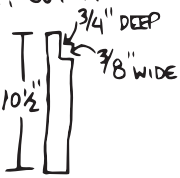


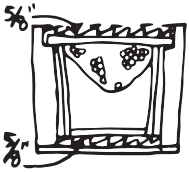
1ST: RIP THE 2x12x12 BOARD DOWN 1" TO 10½" TALL (SAVE THE 1"x12' PIECE, IT WILL BE USED LATER FOR THE LID)

2ND: CUT 2"x10½"x12' BOARD INTO 4 PIECES, THESE WILL BE THE HIVE WALLS



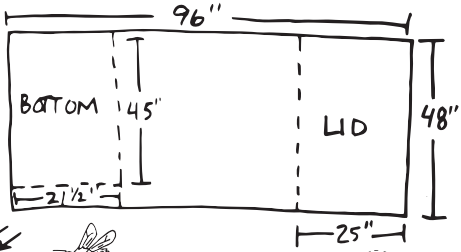
3RD: USING THE TABLE SAW OR A CIRCULAR SAW & JIG, CUT A CHANNEL INTO WALL PIECES (1) & (3) THIS LIP IS WHERE THE FRAMES WILL REST



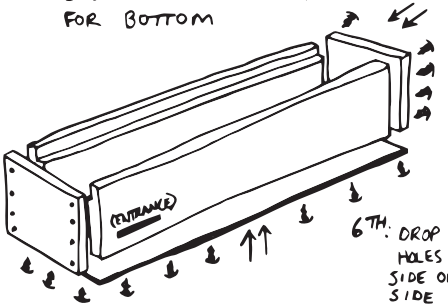


IMPORTANT! THAT THE GAP ABOVE & BELOW FRAMES IS AS CLOSE TO 5/8" AS POSSIBLE, OTHERWISE BEES WILL BUILD COMB THERE IF BIGGER OR AIR FLOW WILL BE RESTRICTED IF SMALLER

4TH: CUT BOTTOM FROM PLYWOOD
45" x 21½"



5TH: ASSEMBLE WITH WOOD GLUE & 3" SCREWS FOR WALLS & 1¼" FOR BOTTOM

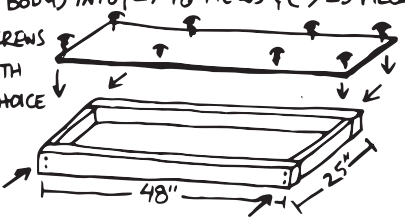


ONCE ASSEMBLED YOUR HIVE BODY SHOULD BE ROUGHLY
45"L x 21.5"W x 10.5"T
AND FIT APPROX. 28 FRAMES

6TH: DROP CUT WITH CIRCULAR SAW OR DRILL MULTIPLE HOLES WITH 3/8" BIT TO MAKE ENTRANCE ON DESIRED SIDE OF HIVE APPROX. 4-6"W X ½"T – 2" FROM SIDE & 1¼" UP FROM BOTTOM

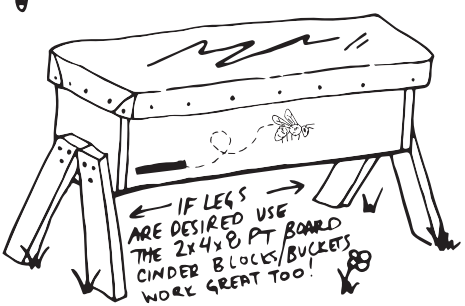
THE LID

1ST: CUT PLYWOOD (REF. STEP 4 OF HIVE BODY)
2ND: CUT 1" PIECE (FROM STEP 1 OF HIVE BODY) INTO (2) 48" PIECES & (2) 23" PIECES
3RD: ASSEMBLE WITH WOOD GLUE & 1¼" SCREWS
4TH: AFTER LID IS ASSEMBLED COVER WITH WATER PROOF BARRIER OF YOUR CHOICE (SEE "SUPPLIES")



TA-DA! (FINAL TOUCHES)

PAINT HIVE BOX WITH A PAINT OF YOUR LIKING (BEES ARE ATTRACTED TO LIGHTER OR VIBRANT COLORS) OR A WOOD SEALER TO PROTECT



TO HELP REGULATE HIVE TEMP AN INSULATING LAYER CAN BE ADDED TO THE INSIDE OF THE LID (RIDGED FOAM, WOOL, METALIC QUILTED STUFF, ETC)

AFTER ADDING FRAMES LAY A PIECE OF CANVAS OR FABRIC ACROSS THE TOP OF THE BOX, THIS WILL ACT AS AN INNER COVER TO PROTECT & ONLY EXPOSE PARTS OF THE HIVE AT A TIME WHEN INSPECTING

Elderflower Beignets

by Alder

I first learned how to make elderflower beignets from a friend who lives seasonally between New Orleans and Yosemite (we used to study monkeyflowers together in Yosemite and spent a summer there doing field work for below minimum wage and surviving mostly off Gushers). She learned this recipe from the offical therapist for park service employees in the valley (lol). Although they look fancy, they're actually super easy to make!

Go out with scissors and fill a basket full of elderflower heads. Where I live in Coast Miwok Territory (Point Reyes, California), we mostly have Sambucus nigra (black elderberry) and Sambucus racemosa (red elderberry). I personally stick to flowers from black elderberry. I prefer their flavor, and since red has more toxic seeds, I just avoid it altogether. Even to an untrained eye, these two plants are easy enough

to discern because on this peninsula, the red ones tend to bloom much earlier than the black ones (both species' flowers are a yellowy-white). Black elderberries are also generally taller and woodier than red, and I've noticed the red species growing closer to the ocean and the black species growing further inland. Both seem happy along roadsides and creeks, and definitely have some crossover in habitat. Their blooming window will vary depending on where you live, but summer is their general blooming time! Even with eyes closed, their distinct musky, sweet smell will give them away. I try to catch them before too many tiny green berries start forming in the elderflower umbel. I also aim to disperse my harvest between several different plants and make sure to leave plenty for the pollinators. Don't forget to say please and thank you!

Ingredients:

10-ish large white elderflower umbels, with at least 1 inch of stem attached

Froth:

2 egg whites

1 cup sugar

Batter:

2 eggs

1 tablespoon sugar

1/2 teaspoon salt

1 cup flour

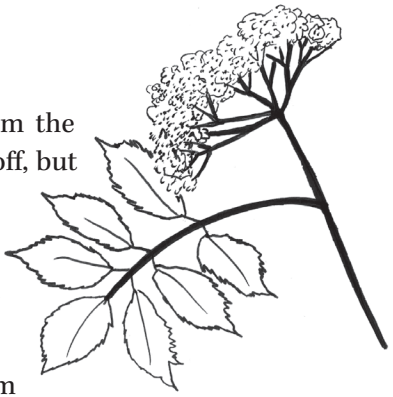
2 tablespoons orange juice

1 tablespoon melted butter

Oil for frying

A bit of water or beer

Instructions



Shake off any dirt or debris from the flowers. You can also rinse them off, but that can dilute some of the flavor.

For froth: Beat egg whites and sugar until stiff peaks form and set aside.

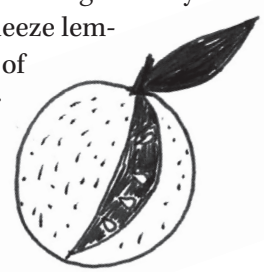
For batter: beat eggs in a medium bowl, add sugar and salt. Add flour to your mixture and beat again. Then add orange juice, melted butter (or oil) and just enough water or beer to make about the consistency of pancake batter.

Preheat ¼-½ inch of cooking oil in a large pan to 365°F.

Soak elderflowers in the egg white froth.

Immediately dip them into beignet batter, drop into hot oil (with tongs if you need), and fry until a light golden brown. Sometimes I move them around with tongs a bit to make sure they're getting evenly cooked, and switch out the oil every once in a while if I'm making really big batches.

Remove from the oil (again, tongs are helpful for this) and put them on a towel to cool.



Dust them with powdered sugar and eat right away (they're best fresh). Sometimes I like to squeeze lemon juice on top of them, or drizzle in some of last year's elderberry syrup (or any jam or sauce will do).

Elderflower stems are slightly toxic so I believe this is a fiddlehead-fern type scenario in which you wouldn't want to eat your weight in them but should be fine with a regular amount (everyone's body is different, as is every plant, so I can't give you an exact number on this).

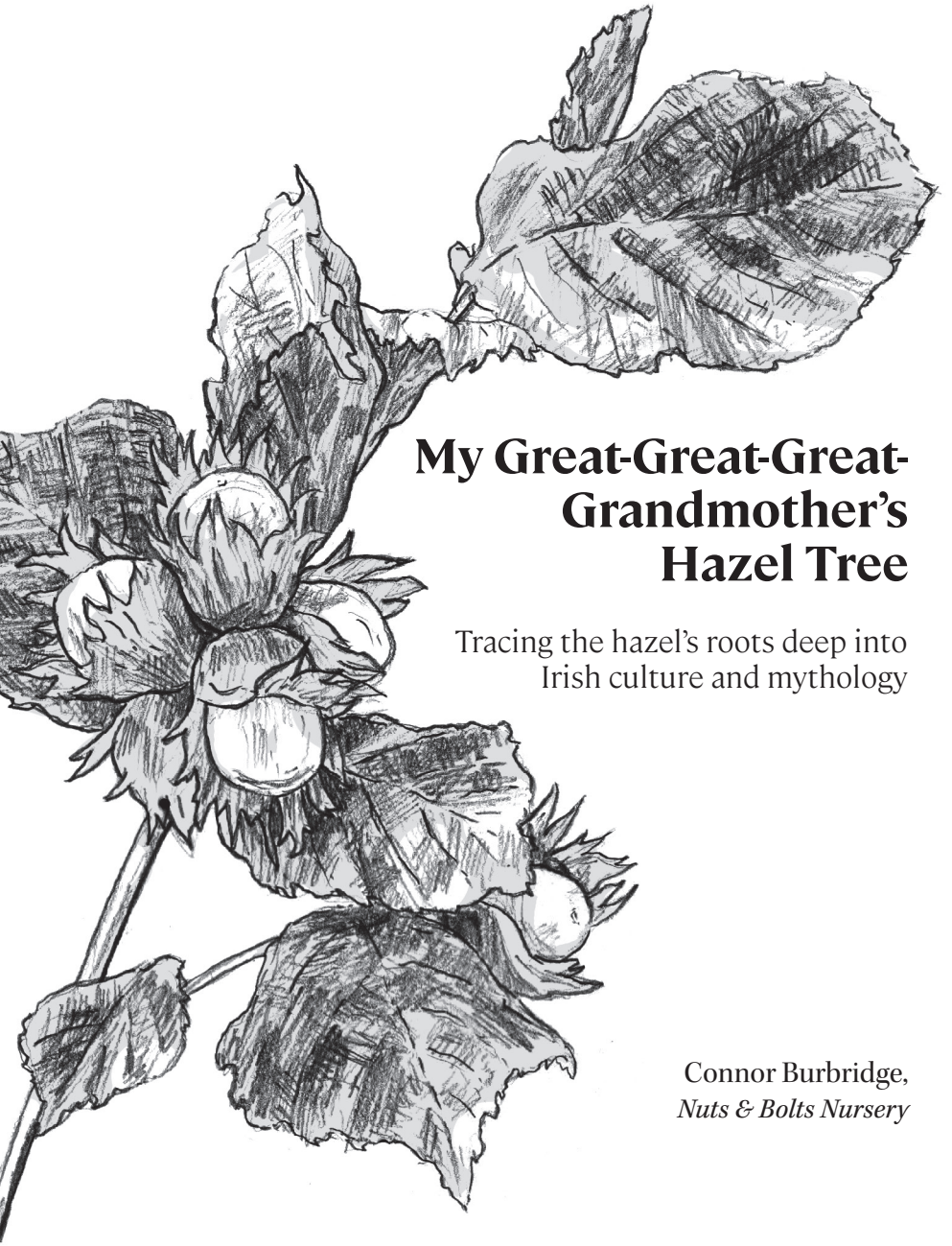
Penny's Bend in early February
every winter we say a month early
until even the month doesn't know its name

too soon to face the sun
the sun revealing the earth, regardless

the trout lilies came out
right as you left

your ghost's favorite bisexual bulb
lured from their winter slumber

she greeted me dog toothed
so willful to be born
as stubborn as you were to die
(Southeast)



My Great-Great-Great-Grandmother's Hazel Tree

Tracing the hazel's roots deep into Irish culture and mythology

Connor Burbridge,
Nuts & Bolts Nursery

I like to imagine her as a little girl harvesting hazelnuts. Filling up an old skirt or cloth with hundreds of tiny nuts, running home excitedly from the forest to an earthen hut. She would be anticipating the sweet roasted nutty flavor before her parents even had a chance to start a

fire in the hearth. I like to imagine this was her life in Ireland before. Before the Great Hunger, famine, hollow eyes. Before mines, smoke and pain in unfamiliar lands. I want to remember her happy, picking hazelnuts.

My great-great-great-grandmother, Bridget Maloney-Smith, grew up in a farming family in County Tipperary. In the 1850s, she emigrated from Ireland to America among the waves escaping *an Gorta Mór,* (the Great Hunger in Irish) a famine caused by the land theft and greed of British colonial policies and the landlords that enacted them. Her county lost close to 50% of its population due to death or migration. As a young adult, she arrived in New York City on one of the crowded "coffin ships", aboard which mortality rates were between 10% and 40%, and later moved to rural North Jersey. I visited her old house there as a child, which is now a small museum. Members of her family have lived in the same square mile radius since she moved there all those years ago. Later in life, her husband John died in the iron mines, which supplied factories in the city. The mining company gave her ownership of the house she was renting from it, where she was left to take care of her two kids alone. She would die in that same house in 1907. She never returned to Ireland.

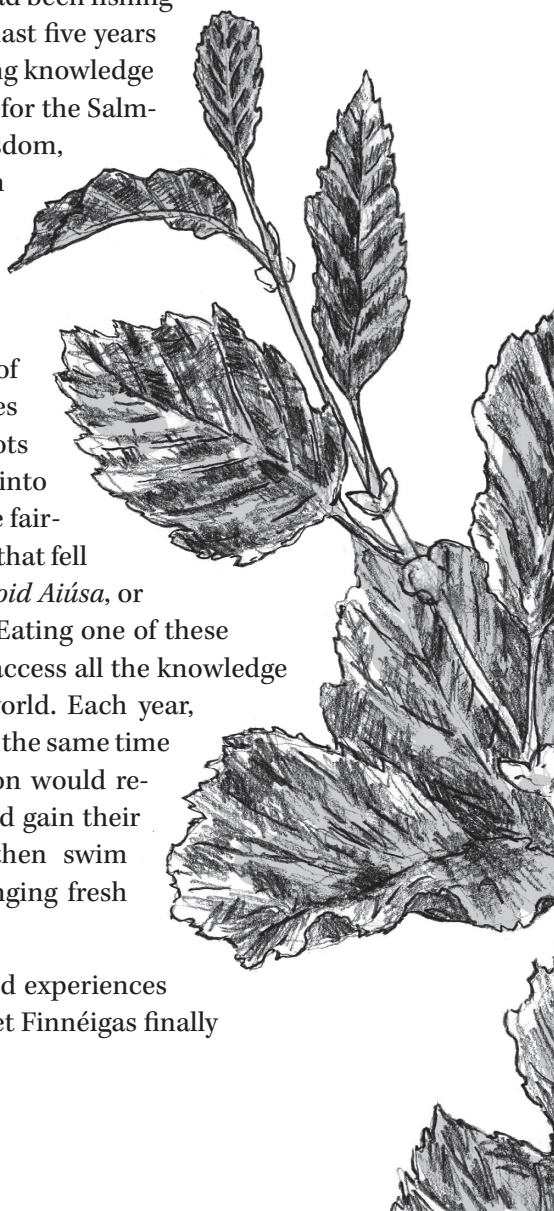
I got to return to where she was born for the first time in 2022. On my trip, in a park outside Tipperary town, I found a wooden plaque next to a tall hazel tree. It read:

> The Hazel (*Corylus avellana*) was once found bountifully across Ireland. It was an important food source and was used to make furniture and fencing. It was also important in Irish Mythology, being heavily associated with seeking wisdom. The Irish word for hazel is *Coll*.

As a part-time farmer for the last four years, I've propagated and distributed hundreds of baby hazel trees, but until that moment in that park, I didn't even know hazels had grown in Ireland. I suddenly remembered that when I was little my dad had showed me an old hazel tree outside the museum that was my great-great-great-grandmother's house; it was old, diseased and dying. He didn't know anything about the tree but thought maybe the state should cut it down. Standing in

that Tipperary park, I felt like a thread that had long been severed was being hastily tied back together. I kept searching through Ireland for answers. Here is some of what I found:

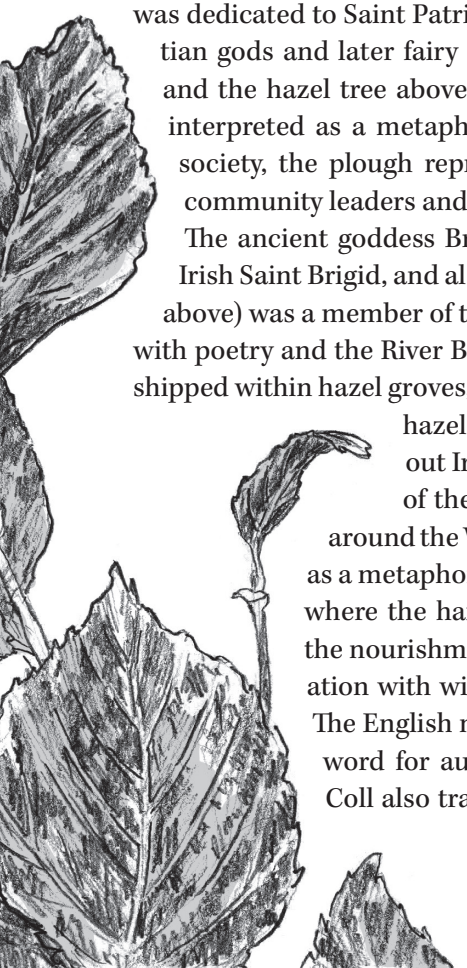
On the River Boyne (*An Bhóinn* in Irish) time and time ago, a little boy and a poet fished together on a bank of the river surrounded by a small hazel grove, in the shadow of a 4,000-year-old earthen temple known to the druids as Newgrange. The little boy, named Demne, had come to learn from the old poet, while helping the poet on his quest to catch a fish. The poet, Finnéigas, had been fishing in the same spot everyday for the last five years when the boy had shown up seeking knowledge and stories. Finnéigas was looking for the Salmon of Wisdom. The Salmon of Wisdom, he told the boy, swam up and down the river, and back to the river's source, the Well of Segais. The well was the sacred source of all five of the major rivers in Ireland (or the five *Srotha Éicsi*, streams of wisdom). Nine magical hazel trees surrounded the well. The trees' roots stretched deep, past the well and into the mystical otherworld, where the fairies and spirits lived. The hazelnuts that fell from the tree were the *Cuill Crinmoid Aiúsa*, or the hazels of poetic composition. Eating one of these hazelnuts would allow a being to access all the knowledge of the ancestors from the otherworld. Each year, the hazels would drop their nuts at the same time like in a mast year, and the salmon would return to the well to eat the nuts and gain their knowledge. The salmon would then swim back down their sacred river, bringing fresh life and vitality to the land.



After a year of sharing stories and experiences with the young Demne, the old poet Finnéigas finally

caught the fish, a giant salmon with dark spotted belly. While Finnéigas gathered special herbs in the forest, he instructed Demne to cook the fish. Demne worked to cook it perfectly over their small campfire. When a bubble appeared on the skin of the fish, Demne popped it with his thumb, but fish oil burst from the fish and burned his thumb. The little Demne instinctively put his thumb in his mouth, sucking it caringly. When Finnéigas came back, he saw the boy's eyes glowing and he knew what happened. "Go eat the rest of the fish and absorb the knowledge. From this day, you'll no longer be known as Demne but as Fionn." This was the beginning of the legend of the mythical hero, Fionn Mac Cumaill, or Finn McCool.

Many other stories from Irish Mythology talk about the importance of the hazel tree. In *Irish Trees: Myths, Legends, & Folklore*, Niall Mac Coitir describes how the Irish had sacred trees in each region, known as Bile in Irish. Many *Bile* were told to be hazel trees, including one that was dedicated to Saint Patrick. The *Tuatha De Danann,* the pre-Christian gods and later fairy spirits of Ireland put the plough, the sun and the hazel tree above all other things. This triad is sometimes interpreted as a metaphor for the three major functions in Irish society, the plough representing peasants, the sun representing community leaders and the hazel representing poets and mystics. The ancient goddess Brigid (anglicized as Bridget, connected to Irish Saint Brigid, and also the namesake of my ancestor described above) was a member of the *Tuatha De Danann* and also associated with poetry and the River Boyne. Some sources suggest she was worshipped within hazel groves, given hazels' association with poetry. The hazel's heavy association with poetry throughout Irish myth came from the well-known myth of the *Cuill Crinmoid Aiúsa,* the hazels that fell around the Well of Seagis. These hazels were often seen as a metaphor for acquiring knowledge and inspiration, where the hard shell of the hazel is broken to acquire the nourishment and enrichment inside. Hazel's association with wisdom and truth also tied it to leadership. The English name hazel is taken from the Anglo-Saxon word for authority or leadership and the Irish word Coll also translates to chieftain or leader. Many more



myths and stories from Ireland also include the hazel. I'm still working to learn them and keep their memory alive, but it's a lifetime of learning. Or at least a full year of camping on the side of the river with an old poet, waiting for sacred wisdom to swim down the stream.

After my journey in Ireland, whenever I tend to the hazels on our small farm in Rhode Island, I hear the baby trees ask me to remember. They want me to remember my ancestors, the Great Hunger, their forced migration, the beauty of the land they left behind. They ask me to honor the continued ways of life and resistance of the Lenape and other indigenous peoples of this land that our family now calls home. And they ask me to never forget the magic in the world around us, the whispers of the otherworld hidden in every forest and river. This year, when I return to Bridget's old New Jersey home, I'll bring two small hazel trees and plant them in the backyard near where the old tree had been. I'll whisper things I would have said to her if I had ever gotten to meet her alive. I'll pray that these trees survive, that their roots make it deep into the otherworld, and that whoever eats the nuts will gain some of the wisdom from the past.

Check out our farm at nutsandboltsnursery.com or e-mail us your thoughts at nutsandboltsnursery@gmail.com

Getting to know the SCRUB JAY

When fall arrives, these normally highly territorial birds gather in large numbers for feeding frenzies during which they may collectively remove as many as four hundred acorns in one hour from an individual tree.

Before investing much energy into harvesting an acorn, a jay inspects it visually, then hefts it in its bill and shakes it to determine the nut's mass and density. If the nut is good (undamaged by insect larvae and sufficiently weighty) the bird may eat it by holding it down with two toes of each foot and smashing with their bill.

"Climate change is gonna transform the environment here to be like Guatemala, it's gonna be a fuckin' rain forest," someone tells me. It's the third straight uncharacteristically humid day here in southern Arizona. I've heard this a number of times, even repeated it myself some. I mean, there was that monsoon season two years ago that brought rains heavy and early; I can still picture Tumamoc hill green as Ireland, a fox prancing in the (could it really have been??) grass. But then again, the summer before, the monsoons didn't come at all, the highs of 112 stayed for two consecutive weeks, and the mountain caught fire, burning for what felt like the whole season.

Later I heard that a friend had just made that Guatemala thing up, like maybe as a joke, or as idle speculation that got repeated until it made it back to him as truth. The whole thing is pretty disorienting: the climate (or is it just "weather," I ask myself), the way we talk about it, how to extrapolate from what's weird, and how to avoid extrapolating too far.

Not sure if I'm supposed to feel this way, but that time two years ago was gorgeous—saguaros hanging their prickly arms over lush meadows.

landless & jaded

archetypes from the seedier side of farming

So you wanna be a farmer?

I get it; I'm with you.

Growing up in bi-coastal suburbs and plopping down in an unfamiliar city in my early twenties, I believed that the lessons of the "natural world" had been mostly lost on me: My connection to place felt truncated and insincere, my relationship with food was twisted by pop culture, I couldn't tell the trees apart, couldn't find my way out of the woods. I sought out the mentors I thought I needed, only to end up with another shitty job, another toxic power dynamic and more experts to despise—was I a farmer yet? With these experiences under my belt, on a good day I foster a deeper appreciation for life in all places and divergent modes of survival, with a keener eye for those who truly share my values and visions of the future. On a bad day, I'm landless and jaded. Here are some of the reasons why, so you might save yourself the trouble and guard your curious heart.

Market farmers just scraping by: You quit your day job and take the plunge, accepting a seasonal gig with the charmingly dirty duo you've been chatting up at your local farmer's market. Despite the facade of their manicured social media posts,

you soon find they're even grumpier than they are classically hot. They say you're part of the family only because they expect you to toil as hard as they do and look the other way when they fight. These people would be happy to have you working as an "apprentice" and living in their shed until you're forty with nothing to show for it but chronic pain and an EBT card.

WWOOF host catfishers: Another hopeful internet search on your quest to shirk the corporate workforce and touch plants brought you to these guys, close cousins of the lovable market farmers but without even the pretense of a fair exchange for your labor. They squeeze as many free work hours out of you as possible, rushing through the promised education, chasing profit. Playing on your empathy, they guilt you into helping with the homeschooling of their nine children but leave you a bad review when you demand a sick day and refuse to go to church with them.

Boomer landowners with a vision: For a rugged individualist she sure is charming—regaling you with stories of out-smarting men, fighting cops and partying at the local communes—all while sweet-talking her cats and complimenting your hair. She keeps you around by dangling the prospect of a joint business venture or willing you her land but doesn't actually trust you to do anything without her direct supervision.

Tack on the hoarding tendencies, questionable conspiratorial views and a peppering of slurs, you lose faith. Eventually she accuses you of stealing and changes the lock on the gate.

Permaculture bros with a guru complex: This guy's 40-hour workshop costs thousands of dollars and he learned everything he knows from a slightly older version of himself just last year. Gives no credit for the indigenous knowledge he blatantly co-opts, doesn't want you to know he bought his land with mommy and daddy's money, and is banned from the local ag supply store for refusal to wear shoes. Invites the youngest girl from every cohort to acroyoga, tries to feel her up under the full moon, and never calls.

Rural men seeking tradwives: So you've fallen in love with the child of back-to-the-land hippies and he's convinced you to move onto the family compound. Even though this is almost the utopia you dreamed of, the isolation and drudgery of rural life without community breaks your heart. You get really good at canning jam and darning his wool socks, but your friends never make the drive out and his mother campaigns to name your firstborn Rudolph Steiner. When he catches you eating Oreos and watching reality tv on your phone in the garage, you know it's over; you pack your car and split, queue the breakup playlist.

Lettuce farmers peddling dystopia: After his last startup failed and a drunken night spent browsing Six Figure Farm-

er Youtube, he decides to go all-in growing garnish and edible flowers for upscale restaurants you can't afford. You tour his grant-funded hydroponic hellscape, pondering scenes from Gattaca while he talks growing veg on Mars and uploading his consciousness. When his Apple watch beeps, you glimpse a notification that reads simply, "Mindfulness." He says he's "gotta jet," and peels out in his Tesla, flattening a baby squirrel.

Anarcho-stoners living rent-free: This is another near-utopia, but the dumpstered Little Ceasars pizzas are wrecking your gut and passers-thru leave all the good tools out in the rain to rust and rot. You had some truly beautiful moments planting trees in your underwear and nurturing scrappy mutual aid projects with the polycule, but maybe your yeast infection is a sign it's time to move on. Resentment builds when the resident trust fund tenderqueer attempts to cancel your helpful elderly neighbor for gendering their dog, plus the in-fighting over an empty land acknowledgement. You start to wonder, what does "land project" even mean?

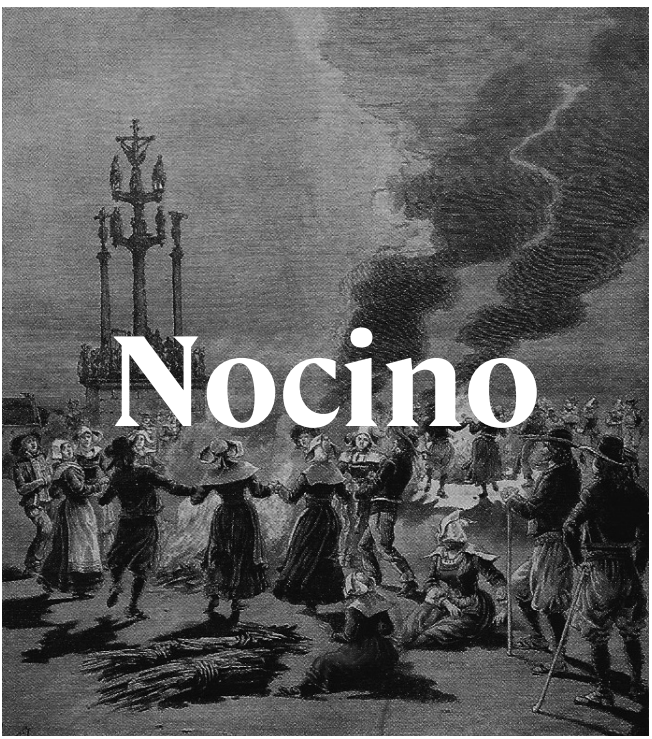
Announcing Dear Landless & Jaded, a new advice column

So you went and got yourself a horrible farm boss/lover landmate/anti-mentor/endearing wingnut sitting on 100 acres with no next of kin? I get it; **I'm here for you.**

Send cries for help, horror stories and tales of hope to lobeliacommons@protonmail.com with "landless & jaded" in the subject line to be considered for publication in the advice column premiering in 2025.

"This is a plant of the sun. Let the fruit of it be gathered accordingly, which as the most virtuous whilst green, before it shells."

– Nicholas Culpepper, Complete Herbal



Lore of an ancient walnut liqueur

I.P.

Pg 56-57 Reduction linocut by Luke Koeferl

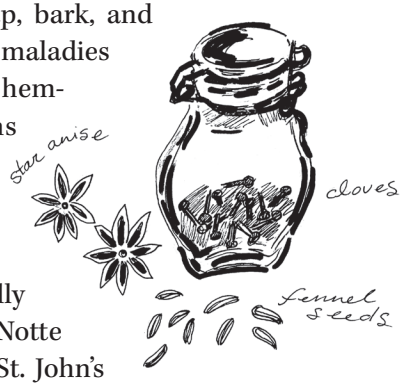
Most of my life, I have been surrounded by walnuts. Bright green fruits, heavily laden low and high branches. Their compound leaflets, waving in the breeze, made them one of the first trees I could identify definitively at a glance. During the transition to fall here in Central Virginia as I write this, ripened black walnuts litter the ground, and I marvel at their overwhelming abundance. I'm sharing here some reflections and instructions for making nocino, a walnut liqueur with its own fascinating history and lore. My ancestors, Italians from Southern/Central Italy, likely had a relationship with walnuts (Juglans sp.), distilling the vitality of summer by concocting an elixir of its unripe nuts. What follows is some background and methods for making your own batch of nocino, from identifying to processing to macerating your own high summer solstice beverage to enjoy anytime of year.

Botany of Walnut – Juglans sp.

Walnuts are a truly ancient species. Evidence of species related to walnuts have been found to have existed in the Miocene era (23-25 million years ago). The botanical family Juglandaceae contains species such as Juglans regia (English walnut), J. nigra (Black Walnut) and J. Cinerea (Butternut). The family of walnuts is so named because of the compound jugalone, a chemical that suppresses the growth of nearby plants and creates what's called an allelopathic environment beneath and around a walnut tree. Living in the Southeast, I'm most well acquainted with black walnut, and this is the tree I'll forage for both nocino in spring as well as for the ripe nuts in fall. Black walnut is a tree native to the Eastern U.S. with a large range spanning most of the Mississippi watershed. Its leaves are long, alternate, and feather-compound. The number of leaflets are between 11-23, toothed. Its bark is grayish, deeply grooved with diamond-shaped patterns. It's nuts have a distinctive, "spicy" odor.

Medicinal Qualities

The hulls/green nuts have antifungal properties and can be used internally or topically for skin conditions such as eczema and herpes. They are used internally for expelling intestinal parasites, such as worms. The hulls can also promote gastrointestinal health and good digestion/absorption overall. First nations people have used the leaves, sap, bark, and crushed hulls for treating maladies such as goiter, ringworm and hemorrhoids, according to Adkins Arboretum.



Lore of Nocino making

In Italy, nocino is traditionally prepared on June 24th on La Notte di San Giovanni (the eve of St. John's day), close to summer solstice when the plants and herbs contain their most vitality and potency. Honoring the walnut, and the making of nocino, harkens back to nature-worshiping traditions and rites that celebrated the heightened cosmic power of the solstice. The Christian Church, with their subjugation of earth-honoring traditions, refocused the midsummer ritual and revelry as St. John's Day. Walnuts became associated with witchcraft and the rituals performed beneath their heavy crowns (The Wondersmith). Despite this, the tradition of nocino-making maintains a strong tie back to the celebration of the sun and the god Jupiter. The genus Juglans comes from jovis glans, latin for "nut of Jupiter" (O'Driscoll).

Ingredients

With knowledge on our side, we are ready to make a batch of Nocino! Some tools to equip yourself:

Jar(s) — ideally wide-mouth

Sharp and/or heavy knife

Gloves (optional)

Liquor of choice (see note)*

Spices (see note)**

Fine sieve (for straining)

Parchment

Labeling materials

* I usually get cheap vodka (40-50% ABV). I think gin or grappa would also be tasty. I like a neutral spirit to highlight the flavors of the black walnut.

** I personally keep it simple with spices for nocino. Sometimes I get wild in smaller batches. Lemon/orange peel, cinnamon, clove or a few coffee beans is always a good bet. I have also tried juniper, rose, hawthorn, fennel seeds and star anise.

Preparation

First step is foraging your walnuts. I use black walnuts though other walnuts would work and might bring exciting flavor differences. It's very important that the fruits are quite unripe so that they are easy to cut through. I try to harvest off a low branch rather than the ground. Between the summer solstice and St. John's day is a good time to gather here

in the South (June 20-24). Shortly before then would also be good. Try cutting into one, or sticking a sharp pin through, to make sure the hull hasn't hardened around the nut.

Add your spices, if using, to the bottom of your jar. How much is up to you — I might use 1-2 tsp. of spices for a quart-sized jar. I want the flavor of the walnuts to shine first and foremost.

Halve or quarter your whole, unripe black walnuts (hulls intact). Use gloves for this step if you don't want your hands impossibly stained. Or don your grubby walnut hands proudly. Fit as many into your jar as you can. Cover with the spirit of your choice. Make sure your walnuts are completely covered by the liquor, otherwise they could mold if exposed to air.

Cap your jar (I recommend putting a piece of parchment between lid and ring if using a mason jar to prevent the lid and ring from becoming stained), and label. Admire it. Let it sit in a cool place away from direct sunlight. Within just a few days, the color of the liquid in the jar will darken significantly.

Wait at least until All Saint's Day (October 31st) to strain your walnuts from the nocino. A fine strainer, several layers of cheesecloth, or even an old t-shirt should do the trick. Your nocino will be a rich black color, and should smell aromatic. It would also taste very astringent, if you dared to try it.

Once strained, make a simple syrup to sweeten your nocino. You could use honey or molasses for this step, but keep in mind that you need quite a bit when opting for expensive sweeteners. I find that simple syrup gives me the mouthfeel I want and also doesn't detract from the flavors already present. Combine 1:1 sugar to water in a small pot and warm until the sugar is fully dissolved. The amount of sugar depends on the amount of nocino, but I would make enough to account for at least ⅓ of your volume of strained nocino. Extra can be stored in the fridge. Let it cool and then add to your nocino to taste.

Once sweetened, allow your nocino to age for 3 months or more out of direct sun. The longer it ages, the more balanced and mellow the flavor becomes. Some folks bottle their nocino for at least a year before serving. It should last indefinitely if stored in an airtight vessel or flask.

Ways to enjoy your nocino:

Over ice, with a splash of seltzer

In a fancy cocktail

Over ice cream

In desserts

Straight up as a digestive

Under a walnut tree, performing occult rituals

Shared with your pals

"Black Walnut : Indigenous Peoples' Perspective Project ." Adkins Arboretum, www.adkinsarboretum.org/programs_events/ipp/black-walnut.html. Accessed 16 Nov. 2023.

"Walnuts, Witches, and Duality - Nocino and Pickled Green Walnuts." The Wondersmith, 14 June 2018, misswondersmith.com/blog/2018/6/14/walnuts-witches-and-duality-nocino-and-pickled-green-walnuts.

O'Driscoll, Dana. "Sacred Tree Profile of Walnut (Juglans Nigra): Magical, Medicinal, and Edible Qualities." The Druids Garden, 28 Apr. 2022, thedruidsgarden.com/2016/11/06/sacred-tree-profile-of-walnut-juglans-nigra-magical-medicinal-and-edible-qualities/.


BLUE COHOSH
ANGELICA
GARLIC
ARBORVITAE
MALE FERN
MISTLETOE
PENNYROYAL
QUEEN ANNE'S LACE
SAFFRON
RUE
TANSY

Abortifacient Plants and the Long War Against Birth Control

Plant knowledge has long been central to reproductive autonomy.

Lala
Edible Parks Development Collective

The earliest documented description of birth control—defined as methods, procedures or practices to prevent conception leading to pregnancy—was the use of honey, acacia leaves, and lint to block sperm, as described in The Egyptian Ebers Papyrus from 1550 BCE. Before and after that, the unwritten practice of abortifacients and emmenagogues (that is, drugs, plants or chemicals that induce abortion or stimulate the menstrual cycle, respectively) was common knowledge shared by Indigenous and Aboriginal peoples, who used these plants to regulate the body's menstrual cycle, to space out pregnancy and childbearing, and later by enslaved and imprisoned communities to resist reproduction.

Ethnobotanical accounts show us thousands of years of effective and safe plant medicine by traditional healers in every non-European population in the world. It is with European expansion, bioprospectors and colonial botanical classification that we see the moralization, industrialization, restriction and banishment of certain plants and

practices. European peoples also maintained traditions of plant medicine, including abortifacients, and the authorities sought to stamp out these as well. Between the 14th and 17th century, an estimated 100,000 people were prosecuted for witchcraft in Europe and British America, and between 40,000 and 60,000 were executed. The witch trials of early modern times were an attempt not to extirpate female "naturalness and irrationality," argue Gunnar Heinsohn and Otto Steiger in a paper titled "The Elimination of Medieval Birth Control and the Witch Trials of Modern Times," but to destroy a highly rational behavior of women—a medieval culture of birth control. After the population catastrophe of the Black Death in the 14th century, midwives became a main target of pro-natalist and mercantilist policy. Labeled witches, midwives stopped learning about and prescribing herbal abortifacients for fear of being burned alive, thus breaking the chain of knowledge that had been passed down for a thousand years.

By the 18th century, governments had made taking and selling abortifacients illegal in most of the world. As with most prohibitions, this shift to suppression and punishment pushed the cultivation and practice of these plant relations into coded and clandestine spaces for preservation and so excluded many from these reliable measures to regulate reproduction.

One of the most striking records of intentional abortion within an enslaved community comes from Maria Sibylla Merian's recounting on the Indigenous use of the Peacock Flower, in her 1705 book Metamorphosis of the Insects of Surinam. Her description ascribes rationality to the act of abortion which, in the hands of Surinam's slave women, is an act of resistance, a reclamation of their bodies and reproductive processes: "The Indians, who are not treated well by their Dutch slavers, use the seeds [of this plant] to abort their children, so that their children will not become enslaved like they are. The black slaves from Guinea and Angola have demanded to be well treated, threatening to refuse to have children. They told me this themselves."

A separate account from one 1860 medical record by a white physician in Tennessee: "Some slave women used herbal abortifacients as a form of rebellion, including the infusion or decoction of tansy, rue, roots and seed of the cotton plant, pennyroyal, cedar gum, and cam-

phor." A refusal to bear children was a powerful statement for enslaved women—in doing so, they denied their enslavers economic gains of the enslavement of their children.

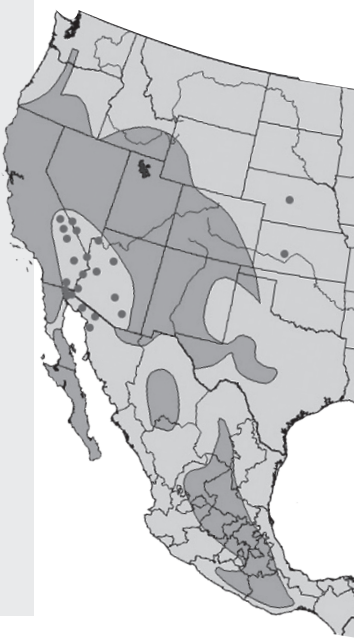
Today, abortifacients are mostly mythologized and understudied, and their abortifacient properties are often even omitted from medical journals due to colonized repression of their uses and benefits. These plants can be found commonly: on roadsides, in forests and in secret gardens kept by brave resistance growers.

Maintaining these plants and knowledge of their use is part of an unbroken tradition relevant to all of us striving for reproductive autonomy as laws become more restrictive and punitive around the world.

Getting to know the SCRUB JAY

A preference for large acorns conveniently allows scrub-jays to avoid competition with acorn woodpeckers, who prefer the smaller ones. Each jay caches up to five thousand acorns during the fall months. According to University of California scientists, "an industrious group of jays can mount an acorn airlift that is nothing short of incredible, moving a forest worth of trees every autumn."

Often the acorns are planted in ideal spots for growing oaks. Biologists believe western scrub-jays, who carry acorns much farther than squirrels, play a key roll in the distribution and germination of California's oaks. Joseph Grinnell noted that without scrub-jays, who often plant acorns uphill from the parent trees, nuts would roll downhill and oaks would be concentrated in valleys.



"God must hate California with all the fires they got," says the grime and grit covered 19 year old sitting next to me in my community college trades class. I wonder if he saw the bittersweet reality coming, that by next week our region would be filled with smoke from the fires happening up at the New River Gorge, or later by the fires in Virginia. Bitter because climate chaos is real, sweet because now we all know we're in this together. No more hiding behind the illusion of safety and separation in the mountains. No more us in here and them out there. Can't pretend it's fog anymore when the smoke hits your throat from the fires, now only as far away as the crow flies. Coming home to roost in the east. Yeah, if God hated California, God hates everywhere now.

(West Virginia)

Yesterday there was a wildfire near Athens, Ohio just over the ridge to the south of our farm. About a mile away. Firefighters got it out within a few hours, but not something we hear every day in these parts.

(Ohio)

Artisanal Vegan Cheese

Tim Holland
Midcoast Vegan (Maine)

Editor's Note: Readers may, like we did, think of vegan cheese as a luxury item and a fairly recent creation. However, in researching the origins of fermented, non-dairy cheeses, we learned that similiarities between making cheese and tofu have led many to conclude that tofu is a non-dairy cheese. And indeed, though the exact origins of tofu are lost to time, one theory suggests that it was first created by ancient Chinese cooks using soy milk and emulating Mongolian milk-curdling techniques. Tofu was historically a "poor-man's food," eaten by those who could not afford the meat and dairy favored by the rich. We hope that this tidbit sparks some creativity among our era's acorn foragers, urban pecan gleaners, nut-orchard keepers and others who will bring vegan cheese out of the hole foods™ and into the world.

Both of the following cheese styles revolve around boiling (or soaking) nuts or seeds, adding a probiotic element, then letting them ferment at room temperature for 1-3 days (depending on the ambient temperature and the desired flavor). The sky is the limit with plant-based cheesemaking—you can make mold based cheeses, aged cheeses utilizing mesophilic cultures, or cheese with water kefir or probioitic capsules. Once you get the hang of the fermented cheese process, there is so much that can be done in terms of flavor and texture. This is just meant to get folks started and is by no means an exhaustive resource.

Let's start with a simple, fresh (meaning not-aged) cheese recipe:

Sunflower seed and/or hazelnut cheese with a wild probiotic brine[1]

Ingredients

1/2 cup probiotic starter liquid

3 cups of boiled hazelnuts, sunflower seeds or other seeds/nuts/acorns/legumes

1 tablespoon of miso

1 tablespoon of nutritional yeast

Step 1: Create a probiotic starter using fermented vegetables.[2] Take a large mason jar (or larger vessel) and fill it about 40% with cabbage (or carrots, radishes, whatever); fill the rest with filtered water and leave about 2 inches of space at the top. Add salt equal to 5% of the total weight of the water and veggies. The salt will inhibit bad bacteria and allow lactofermentation to occur safely. Place a large cabbage leaf or piece of cling wrap over top of the vegetables, weighed down with a rock or weight, to keep the vegetables

1 This recipe is based on the methods laid out in Pascal Bauder's Wildcrafted Fermentation.

2 You can replace this fermented vegetable starter liquid with the rejuvalac methods in Miyoko Schinner's seminal "Artisanal Cheesemaking" or with probiotic capsules they sell in the store (but don't use those, they taste like shit).

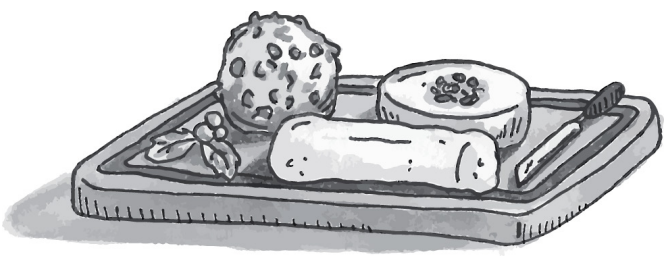
submerged. Check back in a few days. When fermentation hits its peak (pH levels fall below 4.0 and you can see lots of active bubbling) proceed to step two. If you can't tell, just wait a week—it's a forgiving process.

Step 2: Combine about a half cup of the probiotic starter liquid with the nuts (or seeds or legumes), miso and nutritional yeast and blend as finely as you can in a blender or food processor.[3]

Step 3: Remove the mix from the food processor and wrap tightly in a flour sack or t-shirt, put a weight on it and let it sit for about 48 hours at room temperature. Taste after 24 hours. If it's not complex/bitter enough let it sit for another 12-24 hours.

Step 4: Roll the cheese in herbs of your choice then age in the fridge for a few days. Because these are actively fermenting cheeses, they'll become bitter after about two weeks unless they're stored frozen.

Step 5: Eat! (Or freeze to eat at a later date).



3 You can also add coconut oil and potato starch to make melty cheeses. To learn to make cheeses like this I recommend *The Non Dairy Evolution Cookbook* by Skye Michael Conroy. If you don't want to to go overboard with ingredients like carrageenan or coconut oil, try binding agents like oat, potato starch, or even arrowroot or sunchokes to create cheeses that have more elasticity.

Recipe

Aged cheese with mesophillic culture

Ingredients

4 cups of boiled seeds/nuts

1/2 -1 cup of filtered water

3/4 tablespoon of salt

1 tablespoon of miso

1/16 tablespoon mesophillic culture[4]

(you can also add roquefort or penicillin candidum to make blue or brie, see ref. below)

Instructions

Blend all ingredients and place in a container with a towel over the top. You can also put it in a flour sack. Ferment for 12 hours at room temperature. Roll into desired shape or keep in container. Store in a fridge for a week or more and the cheese begins to develop a more complex flavor that is both sweet and tangy, like cheese! If you have access to a wine fridge, throw it in there. There are few rules: check the taste every few days or weeks, learn the methods of real cheese makers and conduct experiments! If you plan on aging your cheese for longer periods of time, rub salt across any surfaces that are exposed to oxygen to inhibit unwanted mold.

This is enough to get started. There's tons of information out there, and these processes are pretty forgiving (until they're not). Good luck!

4 You can buy vegan mesophillic cultures online. It's also possible to use household dairy items like cultured buttermilk and yogurt as mesophilic starter culture. To learn to make aged vegan cheeses or mold based cheeses, check out the free Art of Plant Based Cheese book on fullofplants.com

Here in Eastern Iowa we were talking about going swimming two days ago in the 80-plus-degree weather, and now I'm looking at a light snowfall outside the window.

(Midwest)

From the confluence of the Platte and Missouri rivers—surprised to see that we're in severe drought but maybe that's becuase my perception has been skewed to drier conditions. Best pawpaw and peach year in the last decade. Lots of shallow lakes are below normal and some river side wetlands have dried up but that might also just be an ecological swing back from century-floods of 2018 and 2020 that changed the flood plains drastically. Morels have also recolonized nicely and were abundant in young cottonwood groves!

(Great Plains)

CANCER

cicada

Energy conservation is at the foreground of this next cycle. Your opportunites will be many. The love and life you wished for has arrived. Allow yourself to become a vessel of love. Allow your heart to set your intentions. Pick with care the things you choose to do. Focus your attention to the corner of the world you have been invested in. The finer details in sewing the frayed edges of the universe make more of a difference than you think. Resistance meets opportunity to remind you of the borders of your integrity. Resistance met does not equal immediate actions. Resistance met begs many questions about how you will spend finite energy.

GEMINI

dragonfly

Despite everything, believe in the power of beauty. Unlock the mystery of liminal space through self-actualization. Hold hands with the beginning and the end at the exact same time. Ride the waves and dive deep, but remember to come up and breathe and float in shallow waters from time to time. Play is your holy work. Let play guide you to love. Lay love on grief's altar. Patience is where strength and vulnerability meet. Expect that you'll need to cry. Make sure to chase laughter. Don't let old wounds drain your life force. Healing becomes a real possibility when you allow yourself to begin again.

TAURUS

honey bee

Your power lies in the wisdom that you have spent the better part of your lifetime cultivating. Past timelines will suddenly collide with current ones. You'll have the unique opportunity to meet the past in the present moments and heal multiple internal timelines at once. Simply put, you are integrating. Burdens will become manageable through the application of willpower and compassion, compassion for yourself and others. Build your reserves. Build bridges. Build others up rather than tearing them down. When in doubt, be kind. When in doubt, listen. Relief for psychic weight will be found in the completion of individual tasks. Write out steps, create maps that lead you to the intelligence of the heart. Lead with love knowing that somewhere along time and space your offering will have blossomed into spiritual protection.

ARIES

firefly

Every action does not need an explanation. Support the vitality of your endeavors with compassion. Risk your heart one more time without announcement. Close the gap between your words and actions and watch your life propel forward like you've never experienced before. Show your heart through ritual community efforts. Ritual of action is the foundation on which you build your holy sanctuary. Once your sanctuary is built, be with your loved ones there. Be with the people you love more often. Eliminate beliefs that keep you from experiencing the full spectrum of life. Become familiar with creative commitment. Commit to craft. Commit to your dreams. Commit to eating well. Commit to dressing yourself well. Commit to beauty and find the portal you have been searching for this whole time.

PISCES

diving bell spider

Stay close to home to find the truth you have been avoiding. The courage to confront what you have been avoiding lies in your home element, water. Let water wash you clean, cool the heat that bubbles beneath your anger. Loosen your grip on the past to release the heaviness of your heart. You are not an island, but you do need to learn how to be your own refuge. Learn to be alone. Learn to be bored. Peace lies in simplicity of action. Let this peace guide a new way of being. Sow seeds blessed by gratitude. Replace resentments and contempt with care. In this cycle, the universe will not let you run away. So get comfortable with yourself and where you are. Change is inevitable, changing yourself is a daily choice.

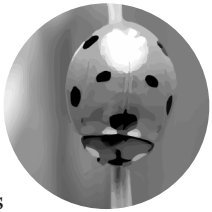
AQUARIUS

tardigrade

Expect everything to change. Expect your truth to change. When met with a crossroads don't be afraid to take a risk. This new path will give rise to something that has been lying dormant for a very long time. Ask questions when you feel scared. Give curiosity attention over assumption. Do not rush to give new experiences definition, this will give you room to grow as you adjust to your rapidly changing world. Your purpose will rise from unsettling places, so let love give shape to your new world. Expand your threshold for more. Take breaks and ask for help. If you have felt stuck for a long time, be prepared to move forward with more confidence and vitality. Remember, fortune favors the brave.

CAPRICORN

lady bug



Grounding down in your actual confidence is the best protection you could ever ask for. Just make sure you discern the difference between ego and confidence before making your protection spells. Wear an armor of your talents and best assets with pride. Shower yourself with the love and care that you give others. Honor endings with a pause to integrate all that has come to pass. Do not let pain be the center of your voice. Speak kindness into each breath and let it expand your world. This next cycle is a call to cycle into your highest and best, anything less will erode your reputation where it matters the most. Take solace in a job well done and the fact that you have done your best. Changes are in effect but will roll out very slow. A slow and intentional pace creates lasting change.

SAGITTARIUS

stag horn beetle

You can just let it go. You are not defined by what happened to you or the battles you think you lost. You are defined by joy and love. Joy is your work in this next cycle. Joy asks that you be present. Indulge the sweetness of your wildest imaginations and invite your beloved people to the party. Make agreements based on desire and not on obligations. Give yourself room to think. Give yourself the gift of spiritual exploration. Find new places to house your integrity. Reduce unnecessary energy output by divesting from empty petty victories. Messages from above are coming to offer you clarity, keep the channels clear and pure. Imbibe less, drink more water.

SCORPIO

black widow

Commit to rituals that support your most grounded plans and wildest dreams. The two are not mutually exclusive, but are locked in a perpetual dance. This next year bodes well for commitments of all types. Commit to what flows with ease. Release what is no longer working. When you feel stuck close your eyes and imagine a river and follow its guidance. Accept invitations to try new things because your magic will be activated in the most surprising locations. Clarify your goals and make room for them to grow. It's time to move on. Take words of kindness with you. Ask yourself: What good can I speak in this moment? How do I honor my highest and best intentions through action? What is my truth? How do I connect to spirit? Ask yourself questions to define what feels unclear. When your question can't be answered, take it to your altar and let spirit answer it for you.

LIBRA

praying mantis

Ceremony is best with others. Tend to your connections with care and intention. Give the grief of the past a proper funeral. You are no longer who you once were, so stop making choices that reinforce what you wish to shed. Make choices in favor of who you are becoming. Trust that you know how to be good. Trust joy. Cry and let grief move you forward. Make altars. Allow yourself the gift of vulnerability. Tell the truth of your heart. Don't fear rejection. Finish up old projects before you start new ones. Make new friends. Make new agreements with old friends. Honor endings by celebrating new beginnings. Honor what you have learned with a new outlook on life.

VIRGO

carpenter ant

Let ritual buoy you through transformation. When in doubt, prepare. This next cycle is going to ask a lot of you. Center love and justice in all that you do and choose. Measure success on how well things flow, not how quickly they produce. Your energy is limited, be intentional. Compassion is the holy space that will make challenges tenable. Do not resist big changes. Embrace change as you would an old friend. Give changes a party complete with cake to mark the birth of forward motion. Accept love and care from others. Ask for what you need and don't be surprised by people's desire to show up and help when the burdens feel too big. This next cycle is meant to break you open so you can find the portal you needed buried in your very own heart.

LEO

monarch butterfly

Make your home at the borders of creation. Root down in the integrity of your heart. Learn to mother yourself and watch yourself blossom. Pack yourself good lunches. Take time to baby yourself. Acknowledge your goodness. Know the difference between self-reliance and individualism. Know the difference between isolation and enjoying your company. Let the universe shake free what is no longer working for you. When in doubt, choose to wait. When in doubt, put flowers on your altar. Get dressed for nothing else but your own pleasure. Remember pleasure through noticing the beauty of the mundane. Save for a rainy day and be impressed with how well you take care of yourself, this will also reflect in how well you take care of your relationships.

Suggested Reading *from the editorial collective*

Maroon Nation
Johnhenry Gonzalez

A timely, powerful reclamation of the meaning of the Haitian Revolution. This agrarian history tells how, contrary to the idea that the revolution failed to truly destroy the plantation system or emancipate those who worked it, early Haitian dictators largely failed in their attempts to revive the plantation economy, and for a century after the revolution, increasing numbers of Haitians lived free lives based on decentralized, small-scale agriculture - alongside an unprecedented period of reforestation. The author argues convincingly that maroon lifeways, including escape to the mountains and dense forests, unauthorized landholding and avoidance of formal commerce and taxation, defined the national character of postemancipation Haiti.

Make The Golf Course A Public Sex Forest
Edited by Lyn Corelle and jimmy cooper

A tantalizing invitation to reinhabit some of the most restricted and sanitized contemporary outdoor spaces—golf courses—through wild acts of public sex and play. What started a few years ago as a jovially antagonistic slogan plastered across yard signs in Minneapolis, MN in response to the proposed re-development of said golf course has taken wing in this collection of short poems, prose, historical essays and lots of gay erotica. An imaginative picture is painted across the anthology of a future where the re-wilding of a landscape is made possible and sexy through devoted stewardship as land shifts into the commons, and free queer love in the open air.

The Solutions Are Already Here
Peter Gelderloos

I've taken to reading way too many books about climate projections, anxiety and policy as study of the shifting terrain in the 21st century. Exhausted by what's now a robust genre, I was slow to pick up Peter Gelderloos' newest book, which lays out the unfolding crisis of our time, from it's ecological symptoms to statist strategies to maintain

control. But once I picked it up, I burned through it. This book is a great resource to put in the hands of someone who feels lost in apocalyptic times. He identifies a growing unnamed (and maybe unnameable) web of movements taking place from Brazil to Indonesia to europe which have diverse and varied historical roots while sharing a kindred spirit and direction. More than just a primer, Gelderloos notes a departure from the primacy of -isms in these projects and identifies several characteristics that act as "tensions that vibrate throughout the entire web," giving a living, practiced foundation for solidarity and collaboration in uncertain times.

An important contribution for study and an excellent introduction for new activists and militants seeking new approaches to building food autonomy and community survival. A much needed grounding in planet-wide territorial struggle.

The Food of a Younger Land: A Portrait of American Food
Mark Kurlansky

Region specific foodways, recipes and foraging and harvest traditions collected and archived by WPA writers during the Great Depression.

Films for Palestine
https://www.filmsforpalestine.com/

[Statement from the curator] Films for Palestine is an ever-expanding collection of Palestinian and Palestinian-adjacent films that began as a series of Instagram stories and evolved into a website. The importance of situating oneself in a historical context in order to understand the unfolding 2023 genocide in Palestine cannot be overstated. These are crucial films—narrative, documentary, experimental. May we view them with our hearts and minds wide open, and for the knowledge we gain to be the foundation of our fight for a Free Palestine.

Decolonize Palestine's Reading List
https://decolonizepalestine.com/reading-list/

January

	DAY OF MONTH	MOON	SUNRISE	SUNSET	SOLAR NOON TIME	DAY-LIGHT HOURS
All data specific to New Orleans, LA	1		6:55am	5:11pm	12:03pm	10h16m
	3		6:56am	5:12pm	12:04pm	10h16m
	11		6:57am	5:19pm	12:08pm	10h22m
	15		6:56am	5:22pm	12:09pm	10h25m
	17		6:56am	5:24pm	12:10pm	10h28m
	25		6:54am	5:31pm	12:12pm	10h37m
	31		6:51am	5:36pm	12:13pm	10h45m

TREE OF THE MONTH	Japanese Raisin Tree, *Hovenia dulcis*
JUST FUCKING GOOGLE IT	Lunar pareidolia
JANUARY 18, 2024	First annual Day of the Forest Defender in memorial of the martyrdom of Tortuguita, murdered at the hands of the Georgia State Patrol while defending the Weelaunee Forest.

Farm notes from Real Roots Farm (outside of Richmond, VA)

Crop plan finished, seeds purchased. Greenhouse temps beginning to reach 60. Heaters broken and vents opening randomly. Can't fully use it until we figure it out.

Seeds Planted: *Thyme (greenhouse) Rosemary (greenhouse) Mint (greenhouse) Marjoram (greenhouse)*

Groundhogs: *Last year the three farms had groundhogs so bad that we had to call in a trapping service to try and lessen their population. In all we trapped 17 ground hogs, and our collective farms are only 3 acres. This year, hopefully, we'll have things a little more under control.*

Notes from an anonymous amateur mycologist

1/4/2023

SW MS

We have been observing a very large wood ear on a sweetgum stump (fell a season ago)

-Very dark purple to dark brown

-Upper surface finely pilose

-Under surface smooth

Appears to be Auricularia angiospermarum

Notes

February

DAY OF MONTH	MOON	SUN-RISE	SUNSET	SOLAR NOON TIME	DAY-LIGHT HOURS
1		6:50am	5:37pm	12:13pm	10h47m
2		6:50am	5:38pm	12:13pm	10h48m
9		6:45am	5:43pm	12:14pm	10h58m
15		6:40am	5:48pm	12:14pm	11h08m
16		6:39am	5:48pm	12:14pm	11h10m
24		6:31am	5:55pm	12:13pm	11h23m
29		6:26am	5:59pm	12:12pm	11h32m

All data specific to New Orleans, LA

TREE OF THE MONTH	Quaking Aspen, *Populus tremuloides*
JUST FUCKING GOOGLE IT	Orca attacks Strait of Gibraltar

FEBRUARY 1802

Led by French general Victor-Emmanuel Leclerc and sent by Napoleon, an expeditionary force of nearly 30,000 arrives in Haiti with the goal of re-establishing slavery. By the end of that year all but 8000 were dead and by the end of the following year, the survivors fled the island in total defeat.

FEBRUARY 2, 1913

Masanobu Fukuoka, philosopher and author of *One Straw Revolution*, is born in Iyo, Ehime, Japan

Farm notes from Real Roots Farm (outside of Richmond, VA)

Seeds Planted: *Carrots, Purple Dragon (direct seeded) Carrots, Orange storage (direct seeded) Snow Peas (direct seeded) Sweet Peppers (greenhouse)*

Groundhogs: *All's quiet. Too quiet. First families emerge.*

Notes from an anonymous amateur mycologist

2/23/23

SW MS

Found a brown agaric in one of the Stropharia beds (hardwood chips, aged)

Pileus: glabrous, slightly sticky, has a peelable skin, generally brown with a slightly darker (small) umbo; margin uneven; convex to plane; 4.5 cm

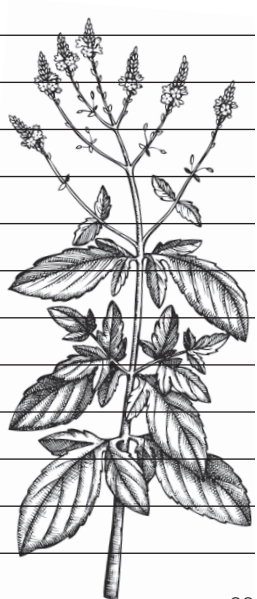
Gills: free, close, deep, pale tan/light brown

Stipe: white, tough, peels when snapped, doesn't bruise anywhere; 5cm H x 5mm W

No odor; No KOH react; spore print rusty brown

Probably Pluteus cervinus

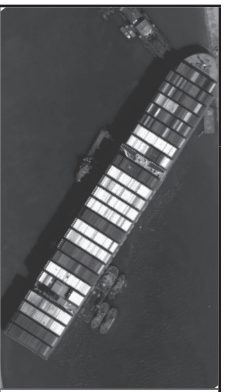
Notes



March

MARCH 20, 1967

The US Air Force begins Operation Popeye, a five year effort to extend the monsoon seasons over the Ho Chi Minh trail in Cambodia, Laos, and Vietnam via "cloud seeding" with lead and silver iodide. The program was halted two days after being revealed by the publication of the Pentagon Papers.



Container ship the Ever Given becomes lodged in the Suez Canal, blocking all traffic through the trading route for six days.

	DAY OF MONTH	MOON	SUNRISE	SUNSET	SOLAR NOON TIME	DAY-LIGHT HOURS
	1		6:25am	5:59pm	12:12pm	11h34m
	3		6:23am	6:01pm	12:12pm	11h37m
	10		7:15am	7:05pm	1:10pm	11h50m
	15		7:09am	7:08pm	1:08pm	11h59m
	16		7:08am	7:09pm	1:08pm	12h1m
EQUINOX	19		7:04am	7:11pm	1:07pm	12h6m
	25		6:57am	7:15pm	1:06pm	12h17m
All data specific to New Orleans, LA	31		6:50am	7:18pm	1:04pm	12h29m

TREE OF THE MONTH Neem, *Azadirachta indica*

JUST FUCKING GOOGLE IT Ornamental hermits

MARCH 23, 2021

Farm notes from Real Roots Farm (outside of Richmond, VA)

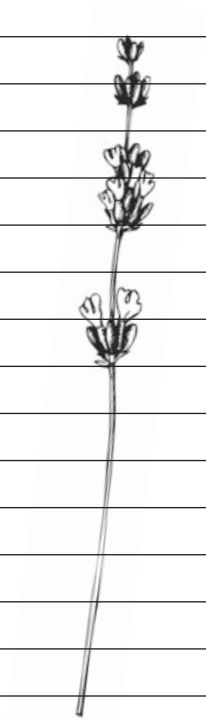
Built a Johnson-Su Vermicompost Bioreactor. Somehow colder than February

Seeds Planted: *Turnips, Hakurai (direct seeded) Radishes, Baby Belle (direct seeded) Beets, Boldor & Chiogga (direct seeded) Parsley, Flat leaf (transplant) Ethiopian Kale, Gomen (transplant) Cabbage, Red & Green (transplant) Green Onions (transplant) Kale, Vates (transplant) Kale, Tuscan (transplant) Cauliflower (transplant) Collards, Champion (transplant)*

Groundhogs: *Spotted a large female, mostly by the greenhouse and potato bags, doesn't seem like she is causing too much damage so I'm going to let her be.*

Notes from an anonymous amateur mycologist

Notes



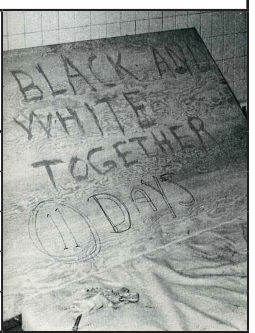
April

APRIL 17, 1996

A prison rebellion begins as 400 men take control of the Southern Ohio Correctional Facility in Lucasville in response to overcrowding and mistreatment. After a negotiated surrender, five inmates would be tried and sentenced to death for their leadership. All remain on death row in Ohio.

All data specific to New Orleans, LA

DAY OF MONTH	MOON	SUNRISE	SUNSET	SOLAR NOON TIME	DAY-LIGHT HOURS
1		6:48am	7:19pm	1:03pm	12h30m
8		6:40am	7:23pm	1:01pm	12h43m
15		6:32am	7:27pm	1:00pm	12h55m
23		6:24am	7:32pm	12:58pm	13h8m
30		6:17am	7:37pm	12:57pm	13h19m



TREE OF THE MONTH	Curly Willow, *Salix matsudana*
JUST FUCKING GOOGLE IT	American Hippo Bill

Farm notes from Real Roots Farm (outside of Richmond, VA)

Community Dinner hosted to fund the materials for an outdoor kitchen. Collective Workforce Program starting this month, 7 new participants. Electric deer fence revamped, training stations working well.

Seeds Planted: *Leeks, King Richard (direct seeded) Beets, Boldor, succession 2 (direct seeded) Cabbage, Red & Green, succession 2 (transplant) Eggplant, Ping Tung (greenhouse) Eggplant, Rosa Bianca (greenhouse) Tomatoes, Landrace Custom succession 1 (transplant) Tomatoes, Sungold, succession 1 (greenhouse)*

Groundhogs: *Another large female spotted, and the first had babies. Three of the cutest little baby rodents I've ever seen. Scared to leave mommas side. Momma is starting to chop the cover crop from last year, mainly the clover and field peas that we have in the tomato rows. If she keeps eating them I don't think they'll be able to flower which means they will fix less nitrogen into the soil. Not good.*

Notes from an anonymous amateur mycologist

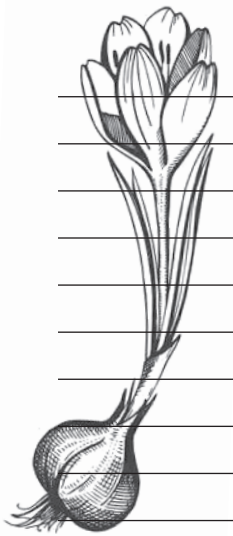
4/5/23

SW MS

Found several clumps of thin, tongue-like fruit bodies coming out of hardwood mulch + soil mix

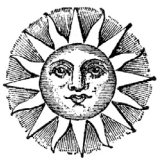
Fruiting body thin, centrally cream-white, salmon/pink superior, base black; up to 3 cm tall, 2mm wide, snaking

Probably Xylaria hypoxylon?



Notes

May



All data specific to New Orleans, LA

DAY OF MONTH	MOON	SUNRISE	SUNSET	SOLAR NOON TIME	DAY-LIGHT HOURS
1		6:17am	7:37pm	12:57pm	13h21m
7		6:12am	7:41pm	12:56pm	13h30m
15		6:06am	7:47pm	12:56pm	13h40m
23		6:02am	7:51pm	12:57pm	13h49m
30		6:00am	7:55pm	12:57pm	13h56m
31		5:59am	7:56pm	12:58pm	13h57m

Earth First!-ers Judi Barri and Darryl Cherney survive the explosion of a pipe bomb planted beneath their car a day before the start of the Redwood Summer anti-logging movement in Humboldt County, California.

TREE OF THE MONTH Hollyleaf Cherry, *Prunus ilicifolia*

JUST FUCKING GOOGLE IT North Atlantic Cold Blob

MAY 24, 1990

MAY 6, 1885

John William Mitchell, agriculturalist and educator, is born in Morehead City, North Carolina. Mitchell served as the Black extension agent (a segregated position at the time) for 3 counties in North Carolina at once, travelling between them by horse or bicycle, and eventually worked up the ranks to become National Extension Leader. Also known for his work establishing large 4-H clubs for the education of Black youth and advocating for national anti-lynching laws.

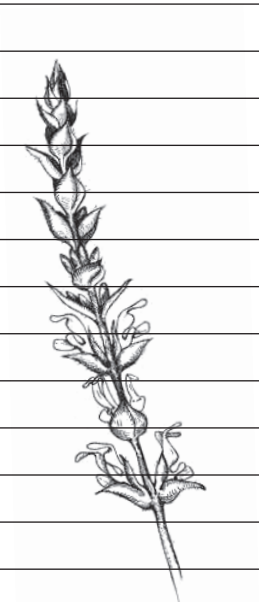
Farm notes from Real Roots Farm (outside of Richmond, VA)

CSA starting. My friend Lou built a beautiful flow-through vermicomposting bin. Irrigation system left off at critical time for herbs, soil dusty as hell. Rehydrating will probably look like handwatering full beds while irrigation remains on.

Seeds Planted: *West African Summer greens, Koto Spinach (direct seed) Calaloo, Jamaican Lime green (direct seed) Molohkia (direct seed) Bissop aka Sorrel (transplant) Tomatoes, Roma succession 1 (transplant) Tomatoes, Landrace Custom succession 2 (transplant) Tomatoes, Sungold, succession 2 (transplant) Maize, Oaxacan Green Dent (direct seed) Maize, Jersey Blue Dent (direct seed)*

Groundhogs: *Momma keeps eating back the cover crop, preventing it from flowering. It seems like they are particularly interested in the flowers, likely because of their nutrient density, but now we are a few weeks behind on planting and I don't think they maxed out on nitrogen fixation. Ran up on the babies a few times, they are so unbelievably slow and clumsy that I couldn't bring myself to kill them. Set up a few traps with some cantaloupe to trap and release.*

Notes



June

All data specific to New Orleans, LA

DAY OF MONTH	MOON	SUN-RISE	SUNSET	SOLAR NOON TIME	DAY-LIGHT HOURS
1		5:59am	7:57pm	12:58pm	13h57m
6		5:58am	7:59pm	12:59pm	14h1m
14		5:58am	8:02pm	1:00pm	14h3m
15		5:59am	8:02pm	1:00pm	14h4m
21		6:00am	8:04pm	1:02pm	14h4m
28		6:02am	8:05pm	1:03pm	14h3m
30		6:02am	8:05pm	1:04pm	14h2m

June 15, 1648

Maragaret Jones becomes the first person executed for witchcraft by a court of the Massachussetts Bay Colony.

TREE OF THE MONTH	Golden Chinquapin, *Chrysolepis chrysophylla*
JUST FUCKING GOOGLE IT	Pleaching

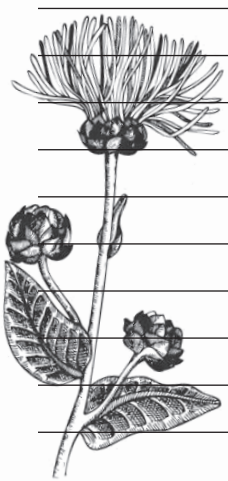
Farm notes from Real Roots Farm (outside of Richmond, VA

Community Dinner a success, $1800 raised and kitchen build started. Drought getting more intense, 2-3 weeks at a time with no rain. CoolBot outdoor fridge building up lots of moisture, need to replace the door so that moisture doesn't get in so easily.

Seeds Planted: *Okra, Hire (direct seed) Eggplant, Ping Tung (transplant) Eggplant, Rosa Bianca (transplant) Tomatoes, Roma succession 2 (transplant) Tomatoes, Landrace Custom succession 3 (transplant) Tomatoes, Sungold, succession 3 (transplant) Buckwheat (cover crop)*

Groundhogs: *Babies have grown and this aint cute anymore. There are now 5 almost full-sized ground hogs again and they are evading the humane traps I keep setting. I'm trying to be nice but they wrecked almost all of our spring greens, including the kale and collards even after I put a net over all of them to deter them from discovering it. The babies are faster and smarter, and have begun to understand when I and most humans leave around dusk, and strike then. I've got traps at all of their holes now.*

Notes



July

DAY OF MONTH	MOON	SUNRISE	SUNSET	SOLAR NOON TIME	DAY-LIGHT HOURS
1		6:03am	8:05pm	1:04pm	14h2m
5		6:04am	8:05pm	1:04pm	14h
13		6:08am	8:03pm	1:06pm	13h54m
15		6:09am	8:02pm	1:06pm	13h53m
21		6:13am	7:59pm	1:06pm	13h47m
27		6:16am	7:56pm	1:06pm	13h40m
31		6:19am	7:53pm	1:06pm	13h34m

All data specific to New Orleans, LA

JULY 19, 2012

Kobanî becomes the first city in Rojava to expel the Assad regime.

TREE OF THE MONTH — Monterrey Cypress, *Hesperocyparis macrocarpa*

JUST FUCKING GOOGLE IT — Nitrogen-fixing corn slime

JULY 26, 1847

The government-ordered assassination of Mayan chief Manuel Antonio Ay marks the beginning of the 54 year long Caste War of Yucatán, an armed native uprising against the European descended population exploiting their labor and communal lands for henequen production. Within a year, Mayan forces took over most of the Yucatán, in part resulting in several thousand Spanish-speaking peninsulares (born in Spain), criollos of Spanish descent and mestizos (of partial indigenous descent but culturally European) settling in northern Belize, while Mayan communities were re-established in the north and west.

Farm notes from Real Roots Farm (outside of Richmond, VA)

Compost program picking up, picking up from 2 Black owned juice bars now, feeding pulp to the worms. Noticing siginificant difference in soil productivity this year, potentially from the regular drought or maybe because of the lack of compost I added this year.

Seeds Planted: *Buckwheat everywhere*

Groundhogs: *We are getting washed. They have eaten almost nine full rows of buckwheat cover crop shoots, and we don't have enough netting to cover all of them. They are taking single bites out of all of our heirloom slicers, ripe and green, breaking stems off of small plants and leaving teeth marks in all of the squash. I'm going to cover as many of the rows as possible*

Notes from an anonymous amateur mycologist

7/10/23

Maurepas WMA

White agaric growing on live willow (Salix nigra)

Pileus: White, eraser-like texture, oblong, 5-8cm

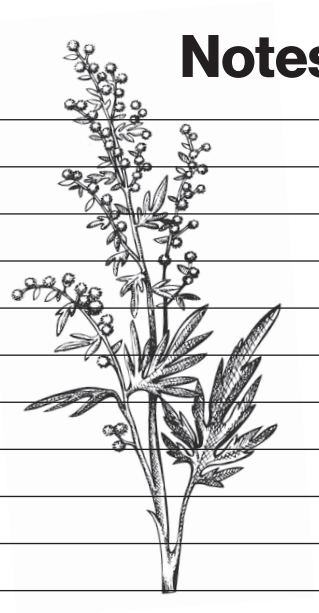
Gills: Sinuate-decurrent, deep, forking, white, wide

Stipe: 5cm H x 2-5mm W, white, central, snaps, splits

Spore print: cream-yellow

Oudemanisella canarii

Notes



August

DAY OF MONTH	MOON	SUNRISE	SUNSET	SOLAR NOON TIME	DAY-LIGHT HOURS
1		6:19am	7:52pm	1:06pm	13h33m
4		6:21am	7:50pm	1:06pm	13h29m
12		6:26am	7:43pm	1:05pm	13h17m
15		6:28am	7:40pm	1:04pm	13h12m
19		6:30am	7:36pm	1:03pm	13h6m
26		6:34am	7:28pm	1:01pm	12h54m
31		6:37am	7:23pm	1:00pm	12h46m

All data specific to New Orleans, LA

TREE OF THE MONTH	Sugar Maple, *Acer saccharum*
JUST FUCKING GOOGLE IT	Acequia

Emiliano Zapata was born in Anenecuilco, in the Mexican state of Morelos, just south of Mexico City. Zapata was an advocate of fundamental land reform who lead a successful peasant army to become one of the most famous heroes of the Mexican Revolution. His central demand famously states "The land belongs to those who work it." In 1917, Zapata's land reform was enshrined in a new Mexican constitution legalizing communal landholdings, called ejidos, and severely limiting the power of large landholders in Mexico.

AUGUST 10, 1680

Farm notes from Real Roots Farm (outside of Richmond, VA)

Starting volunteer days 1 hour earlier. Wire grass out of control, going to start using tarps to cover them because making the volunteers do it every week isn't fair. Second growing site becoming untenable.

Seeds Planted: *Yea Nahhh. Outside Max Temp 102 - Greenhouse Max Temp 133*

Groundhogs: *All attempts at peace have failed. War has been declared on the ground hogs. I had to purchased two Scheels connibear traps for placement in and around their holes. They've been eating too good. I've lost probably 1000's of $ of crop at this point. If all of these offspring have their own litters, we'll be back in the same situation we were last year.*

Notes from an anonymous amateur mycologist

8/31/23

SW MS

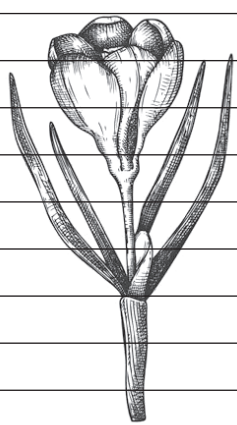
Found several large ants, biting leaf petioles w/ a thin hair-like fruiting body coming out from behind the ants' head

Ants: 1cm long, gold-red, exoskeleten rotted

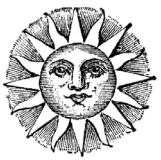
Fruiting body: 5-6 mm tall, tapers towards tip, black-brown at base, becoming white and thin towards tip

Ophiocordyceps unilateralis sensu lato

Notes



September



DAY OF MONTH	MOON	SUNRISE	SUNSET	SOLAR NOON TIME	DAY-LIGHT HOURS
1		6:37am	7:21pm	1:00pm	12h44m
2		6:38am	7:20pm	12:59pm	12h42m
11		6:43am	7:09pm	12:56pm	12h27m
15		6:45am	7:04pm	12:55pm	12h20m
17		6:46am	7:02pm	12:54pm	12h16m
EQUINOX 22		6:48am	6:56am	12:52pm	12h7m
24		6:50am	6:53pm	12:52pm	12h3m
30		6:53am	6:46pm	12:50pm	11h52m

All data specific to New Orleans, LA

TREE OF THE MONTH

Chaste Tree, *Vitex agnus-castus*

JUST FUCKING GOOGLE IT

Dhap gardens

SEPTEMBER 25, 2020

National Bharat Bandh (national blockade of roads) begins in movement of Indian farmers.

SEPTEMBER 8, 1965

Larry Itliong of the Agricultural Workers Organizing Committee (AWOC) calls for the Delano Grape Strike, in which more than 1,000 Fillipino farmworkers struck. AWOC was joined in this effort by the National Farm Workers Association (led by Chicano movement leaders Dolores Huerta and César Chávez) and their alliance prevented scabbing. The strike, in combination with a boycott on buying table grapes and alliances with dock workers, led to table grape growers signing union paperwork in 1970.

Farm notes from Real Roots Farm (outside of Richmond, VA)

Temps finally dropping, second round of direct seeding happening. Was going to just do a spring and summer crop, now considering a full fall crop. CSA getting harder to fulfill, crop diversity down significantly because of summer heat.

***Seeds Planted:** Turnip, Hakurai (direct seed) Scallions, (direct seed) Beets, Bulls Blood (direct seeds) Radishes, Easter Egg (direct seeds) Carrots, Purple Dragon (direct seeds) Potatoes, some random shit from Whole Foods (direct seeds)*

***Groundhogs:** They have pretty much decimated my area and have begun to move to the flower farm next to mine, Hazel Witch Farm. They ate almost all of her cover crop and some of her fall cut flower cash crop starts. Gotta do more research on the connibear traps. Damn near took my hand off trynna set this thing. Humane traps only catching possums, bless their hearts.*

Notes from an anonymous amateur mycologist

9/13/23

Atchafalaya NWR

Bottomland, cypress, oak, hackberry, sweetgum, mulberry nearby

Found a red capped bolete on soil

Cap: Brick red, dries-bruises tan, scratches to flesh in tears, almost sticky, 4cm

Flesh: Pale mustard yellow, squishy, bruises faintly blue, tubes brown in profile + 5mm

Hymenium: Bright yellow, bruises black-blue and dries brown; pores hexagonal-labyrinthine, 2 pores/mm

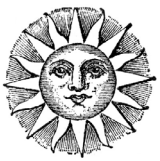
Stipe: 5 cm H x 8 mm W, snaps + peels, hollow-pithy ish, yellow to red to white and yellow at the base w/ mycelial mass (yellowish)

KOH: red-brown on hymenium, none on cap

Genus Hortiboletus?

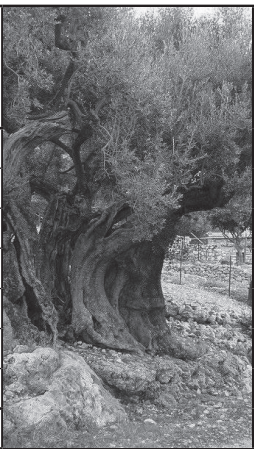
Notes

October



All data specific to New Orleans, LA

DAY OF MONTH	MOON	SUNRISE	SUNSET	SOLAR NOON TIME	DAY-LIGHT HOURS
1		6:53am	6:44pm	12:49pm	11h51m
2		6:54am	6:43pm	12:49pm	11h49m
10		6:59am	6:34pm	12:47pm	11h35m
15		7:02am	6:28pm	12:45pm	11h26m
17		7:03am	6:26pm	12:45pm	11h23m
24		7:08am	6:16pm	12:44pm	11h11m
31		7:13am	6:13pm	12:43pm	11h



TREE OF THE MONTH	Al Badawi Olive Tree
JUST FUCKING GOOGLE IT	Solar evacuated tube cooking
OCTOBER 1, 2000	A general strike is called in response to the visiting of the Al-Aqsa mosque by right-wing Israeli politician Ariel Sharon. The conflagration that erupted across Palestine became known as the second Intifada or "shaking off" of Israeli colonization.

Farm notes from Real Roots Farm (outside of Richmond, VA)

Trying to sell this woodchipper, don't need it. Gotta figure out a way to keep the worms warm. Setting up a worm composting workshop next month for beginners.

Seeds Planted: *Peas, Austrian Winter (cover crop) Crimson Clover (cover crop) Garlic, hardneck (direct seed) Turnip, Hakurai (direct seed) Kale, Red Russian (direct seed)*

Groundhogs: *.22 calliber Rossi long rifle purchased. Hollow point high velocity copper plated ammo. No options left, if they go into their lairs and mate its a wrap. I'm a much better shot than I am at setting traps and I don't have time for this. All due respect to these little creatures but my patience has dried up. Open season.*

Notes from an anonymous amateur mycologist

10/8/23

North Alabama

Bottomland area, near oaks, elms, sweetgum, occasional pines

Found 2 small stiped polypores on a hardwood twig

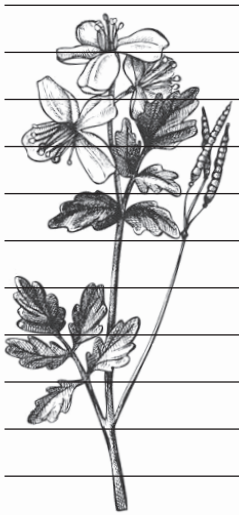
Pileus: white-cream, undulating shape, 3 cm

Hymenium: pores tiny, decurrent

Stipe: white, 3-4cm H x <1cm W

Loweomyces fractipes

Notes



November

NOVEMBER 1974

First major occupations of wealthy estates by poor farmers in Portugal's Alentejo region. Within a year, a quarter of all farmland had been occupied, turning latifundia plantations into communal farms.

All data specific to New Orleans, LA

DAY OF MONTH	MOON	SUNRISE	SUNSET	SOLAR NOON TIME	DAY-LIGHT HOURS
1		7:14am	6:12pm	12:43pm	10h58m
8		6:20am	5:07pm	11:44am	10h48m
15		6:25am	5:03pm	11:44am	10h38m
22		6:31am	5:01pm	11:46am	10h30m
30		6:38am	5:00pm	11:49am	10h22m

TREE OF THE MONTH	Cedars of God *(Bsharre, Lebanon)*
JUST FUCKING GOOGLE IT	Pemmican

Following months of regime desertions and all time low morale, rebels in Myanmar shoot down a junta fighter jet. Most insurgents got their start protesting the 2021 coup using shields and thrown projectiles before moving onto bows & arrows, catapults and then home made 3D printed firearms. A constellation of myriad ethnic militias and various rebel armed formations, the resistance to the junta is largely decentralized and anti-authoritarian.

NOVEMBER 2, 1979

Assata Shakur escapes from federal prison.

NOVEMBER 11, 2023

Farm notes from Real Roots Farm (outside of Richmond, VA)

Workshop went well. Retooling workforce program this winter, want to incorporate profit sharing/ collective decision-making Seeds Planted: Peas and Oats Mix, (cover crop)

***Groundhogs:** I feel insane. walking around my farm at dusk like Elmer Fudd. I think they know. As soon as I copped the rifle they just disappeared. I swear it was the next day. I saw one but by the time I got to my truck to get the gun it had ran off. I think I waited too long.*

Notes from an anonymous amateur mycologist

11/21/23

SW MS

Mixed pine/hardwood; dominated by sweetgums, oaks and loblolly pine

Found a heavily rotted (hardwood?) chunk of wood covered in what appears to be pale yellow-green Cladonia lichen

11/14/23

New Orleans

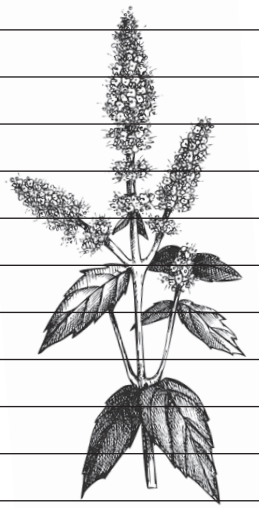
Front yard garden of densely growing native plants

Found a bunch of individual tongue-like fruiting bodies on decaying mulchwood

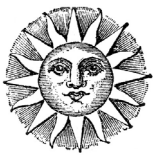
Fruiting body: 2-3cm, black with a white/salmon superior, snaking, crusty

Appears to be Xylaria hypoxylon

Notes



December



DAY OF MONTH	MOON	SUN-RISE	SUNSET	SOLAR NOON TIME	DAY-LIGHT HOURS
1		6:38am	5:00pm	11:49am	10h21m
8		6:44am	5:00pm	11:52am	10h17m
15		6:48am	5:02pm	11:55am	10h14m
SOLSTICE 21		6:52am	5:05pm	11:58am	10h13m
22		6:52am	5:05am	11:59am	10h13m
30		6:55am	5:10pm	12:am	10h15m
31		6:55am	5:11pm	12:03am	10h15m

All data specific to New Orleans, LA

TREE OF THE MONTH	Date Palm, *Phoenix dactylifera*
JUST FUCKING GOOGLE IT	Bald eagle courtship cartwheel

DECEMBER 18-20, 2018

Seeking to revitalize traditional stewardship practices and assert their autonomy, Karenni activists establish the 1.4 million acre Salween Peace Park on their ancestral domain in so-called Myanmar. The Park follows a land-use tradition of the Karen people based in spirituality known as kaw, which divides land into places for hunting, places for crops, places for burial, places of forest protection and places of dwelling.

SCRUB JAY

As fall turns to winter the jays increasingly rely on their cached acorns, eating them into spring. The tannic acids in acorns interfere with protein digestion, so they'll eat almost anything else they can get there bills on. In late spring they switch to moth and butterfly caterpillars, found mainly on oaks. They will eat other insects as well as fruit, birds, reptiles, rodents and carrion. Watch for them whacking snakes, lizards, or caterpillars againts the ground or rubbing hairy caterpillars on hard surfaces to scour away their bristle. They even hop around on deer looking for ticks while their grateful host remains perfectly still.

Notes from an anonymous amateur mycologist

12/27/23

SW MS

Mixed pine/hardwood; dominated by sweetgums, oaks and loblolly pine

Found 2 very small yellow-capped agarics on a clump of mossy (sandy) dirt (dug up and displaced last spring)

Pileus: 4-5 mm, bright yellow, deeply striate (orange); margin white, even; shape broadly convex

Gills: pale yellow, sinuate, includes short gills, subdistant

Stipe: 3 cm H x 1 mm W, hollow, white w/ white mycelial mass at base, even, central

Flesh yellow, thin; no noticeable odor; KOH has brown react; Spore print rusty orange

Galerina sp

12/9/23

North Shore of Lake Pontchartrain

Pine dominated, open woods

Found 2 individual agarics growing in Pine (primarily) duff- dense fruiting across the space

Pileus: cramy-white to pale yellow warts, peachy pink to yellow-orange cap, glabrous, striate gills along margin, 7 cm

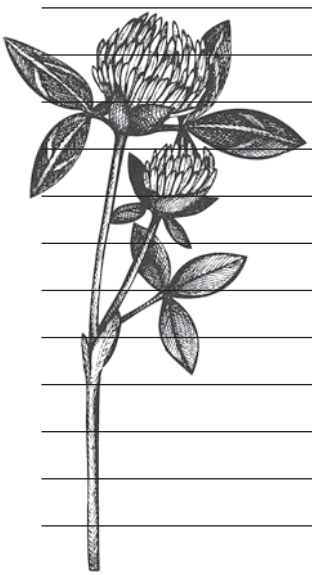
Gills: Free, includes short gills, crowded, deep, white-cream

Stipe: 9cm H x 1-3 W, white/cream-tan, fibrillose, bulbous; annulus robust, "crepe-y"

Odor lightly citrus-y to portobello-y

Amanita persicina

Notes



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)

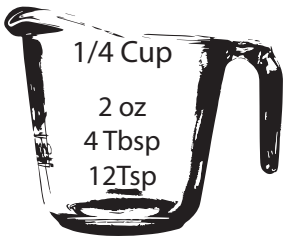
perennial okra (Abelmoschus esculentus), edible seed acacias (Acacia holosericea, A. murrayana, A victoriae), hardy agaves (Agave parreyi, A. chrysantha, A. deserti, A. utahensis, A. palmeri), tropical agaves (Agave salmiana, A. tequilana), perennial leek (Allium ampeloprasum), multiplier onion (Allium 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),

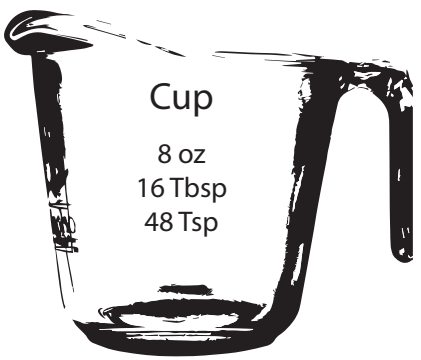
LOWLAND MONSOON AND HUMID TROPICS (USDA Zones 10-12)

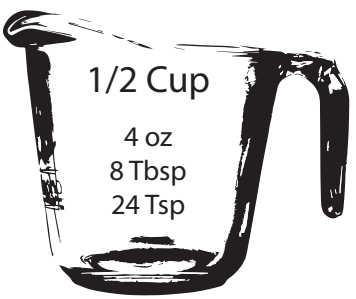
perennial okra (Abelmoschus esculentus), edible hibiscus (Abelmoschus manihot), baobab (Adansonia digitata), tropical agaves (Agave salmiana, A. tequilana), Welsh onion (Allium fistulosum), garlic chives

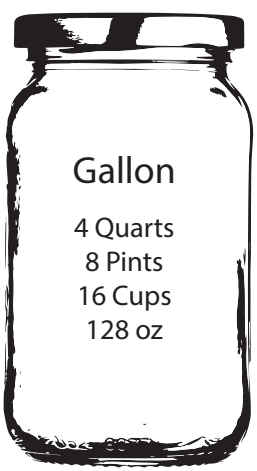
(Allium tuberosum), giant taro (Alocasia macrhorrhizos), sissoo spinach (Alternanthera sissoo), water hawthorn (Aponogeton distachios), water yam (Aponogeton madagascarensis), breadfruit (Artocarpus altilis), jakfruit (Artocarpus heterophylla), clumping bamboo (Bambusa spp.), Malabar spinach (Basella 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)

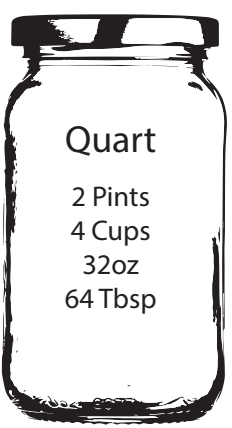
CONVERSIONS

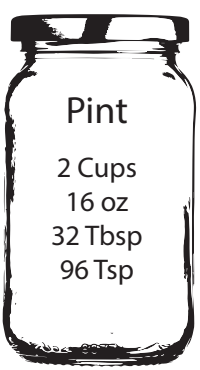










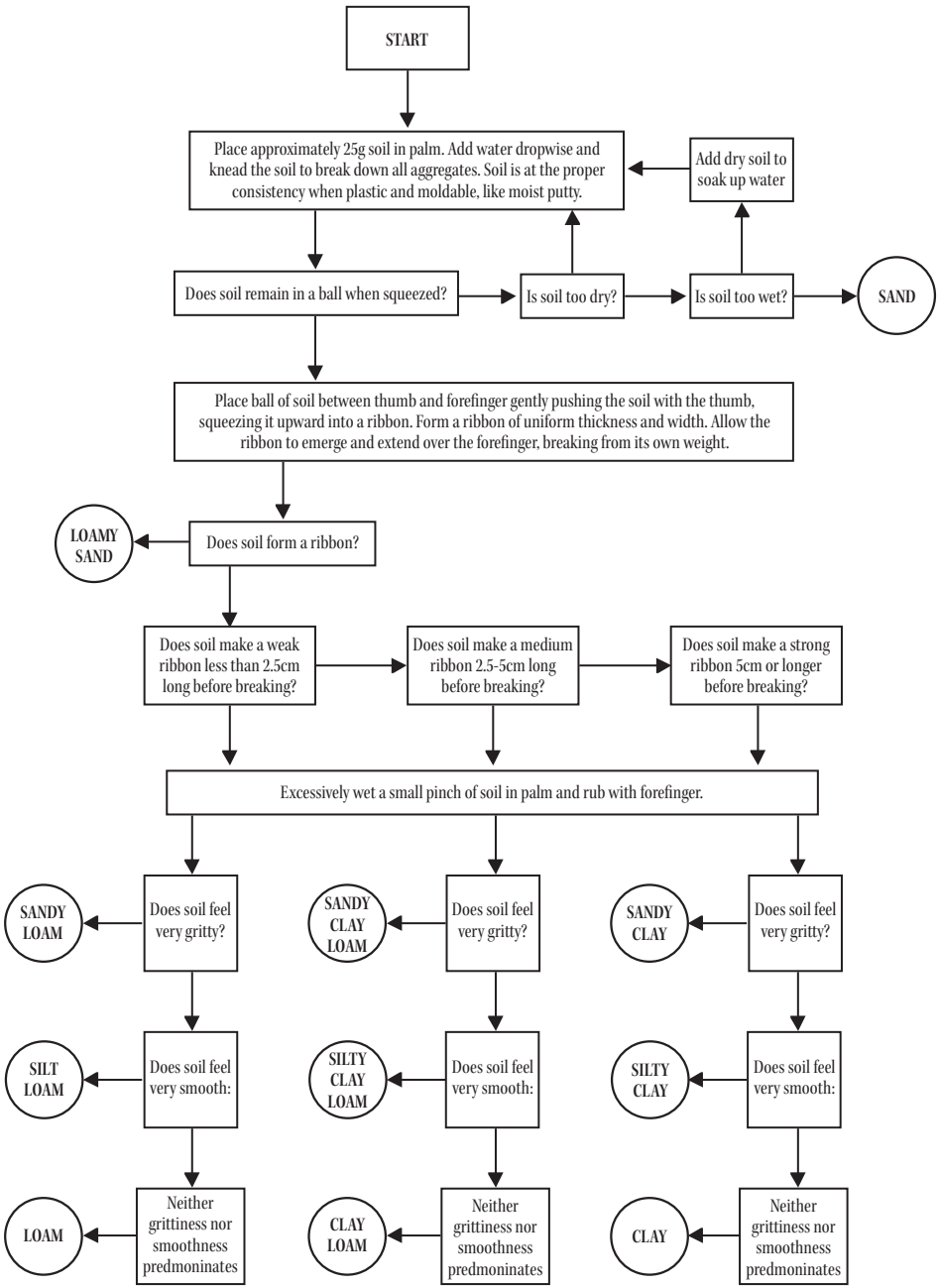


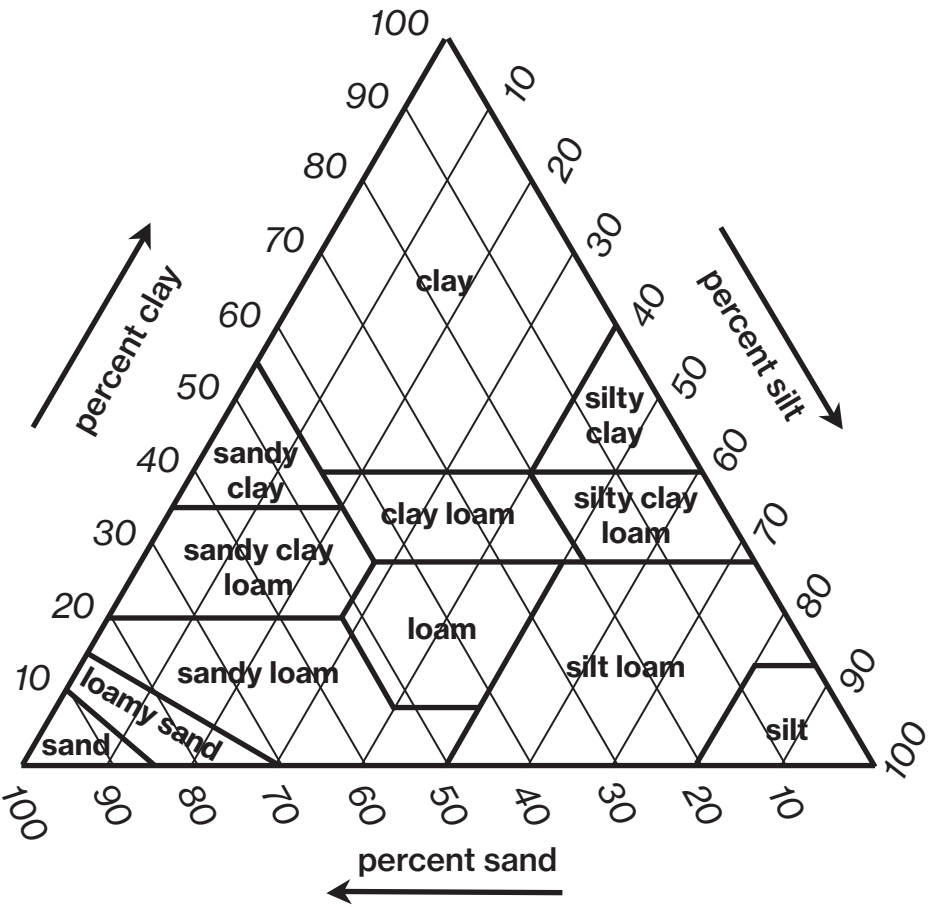
CONVERSIONS

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

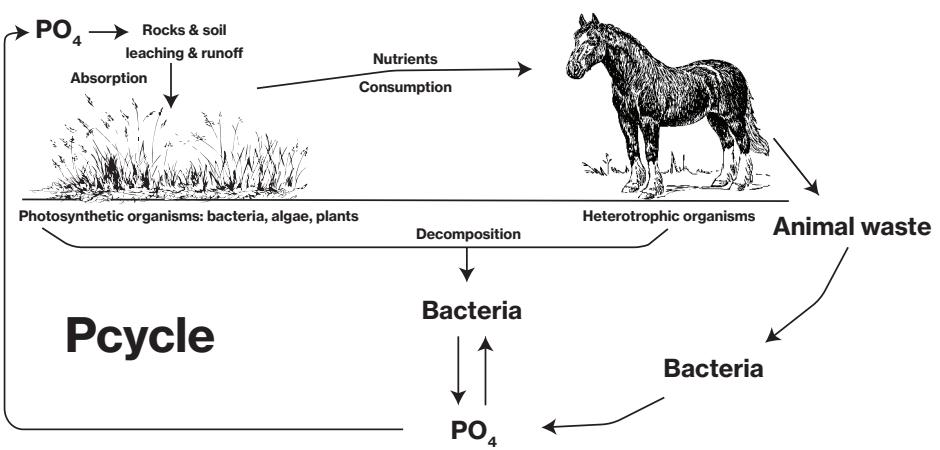
Home Test for Soil Type




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

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

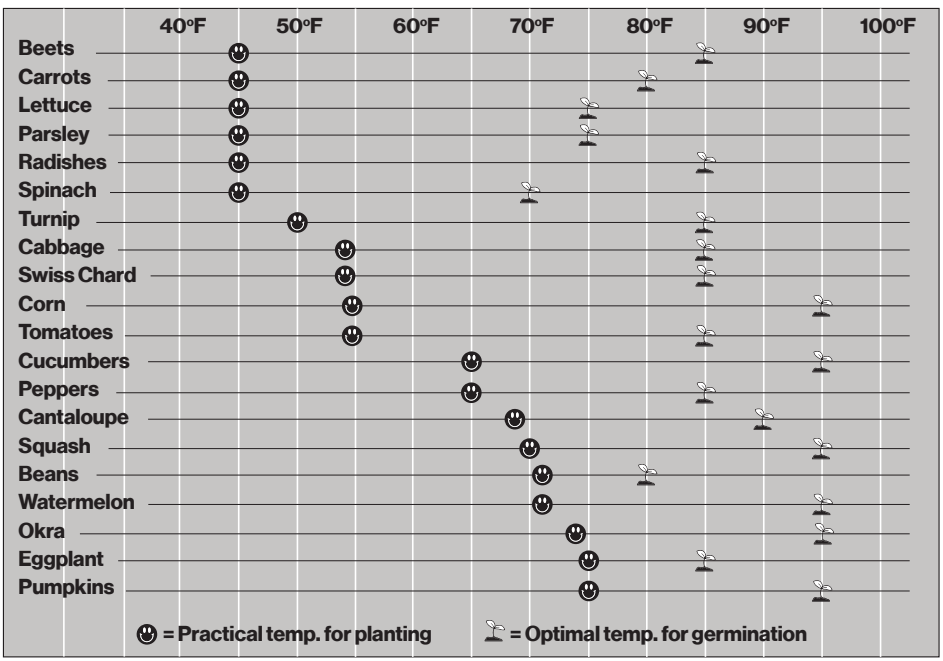
Type of Animal Manure	N	P[2]	K	Moisture, percent	Weight, lb/cu yard
	lb per ton as is [1,2]				
Chicken with litter	73	28	55	30	900
Laying hen	37	25	39	60	1,400
Sheep	18	4.0	29	72	1,400
Rabbit	15	4.2	12	75	1,400
Beef	12	2.6	14	77	1,400
Horse	9	2.6	13	63	1,400
Dry stack dairy	9	1.8	16	65	1,400
Separated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

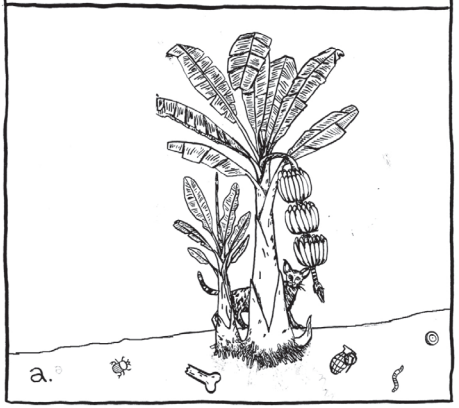
Soil Temperatures for Germination

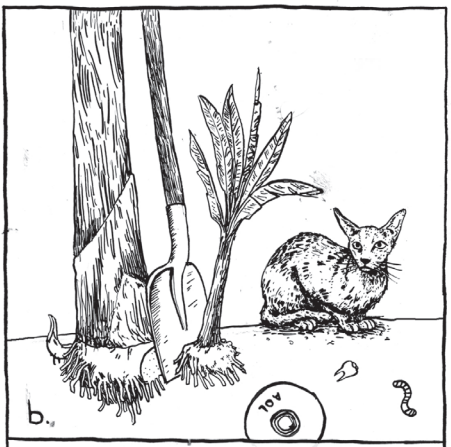


DESTITUTE DOLE

BANANA PROPAGATION

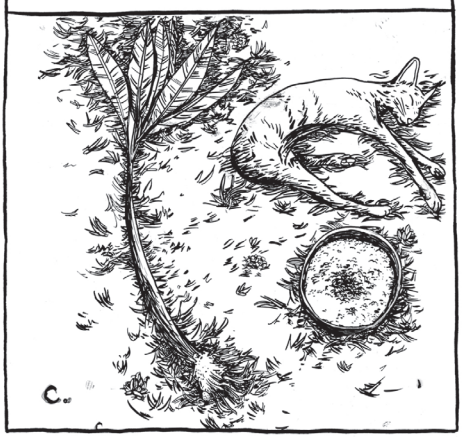
Cloning a banana plant is less of an operation then it sounds like. The banana is busy cloning itself anyway - left to its devices, one plant will form a circular clump, spreading year after year.

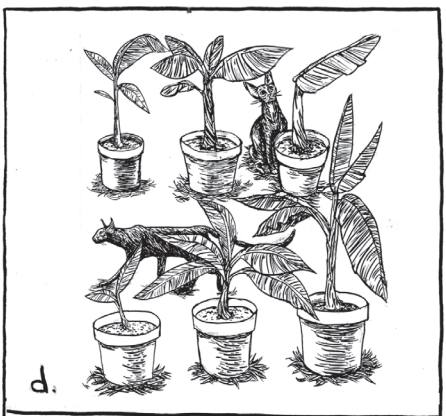




Baby bananas are called pups. A sharp shovel is used to seperate them from the larger clump.

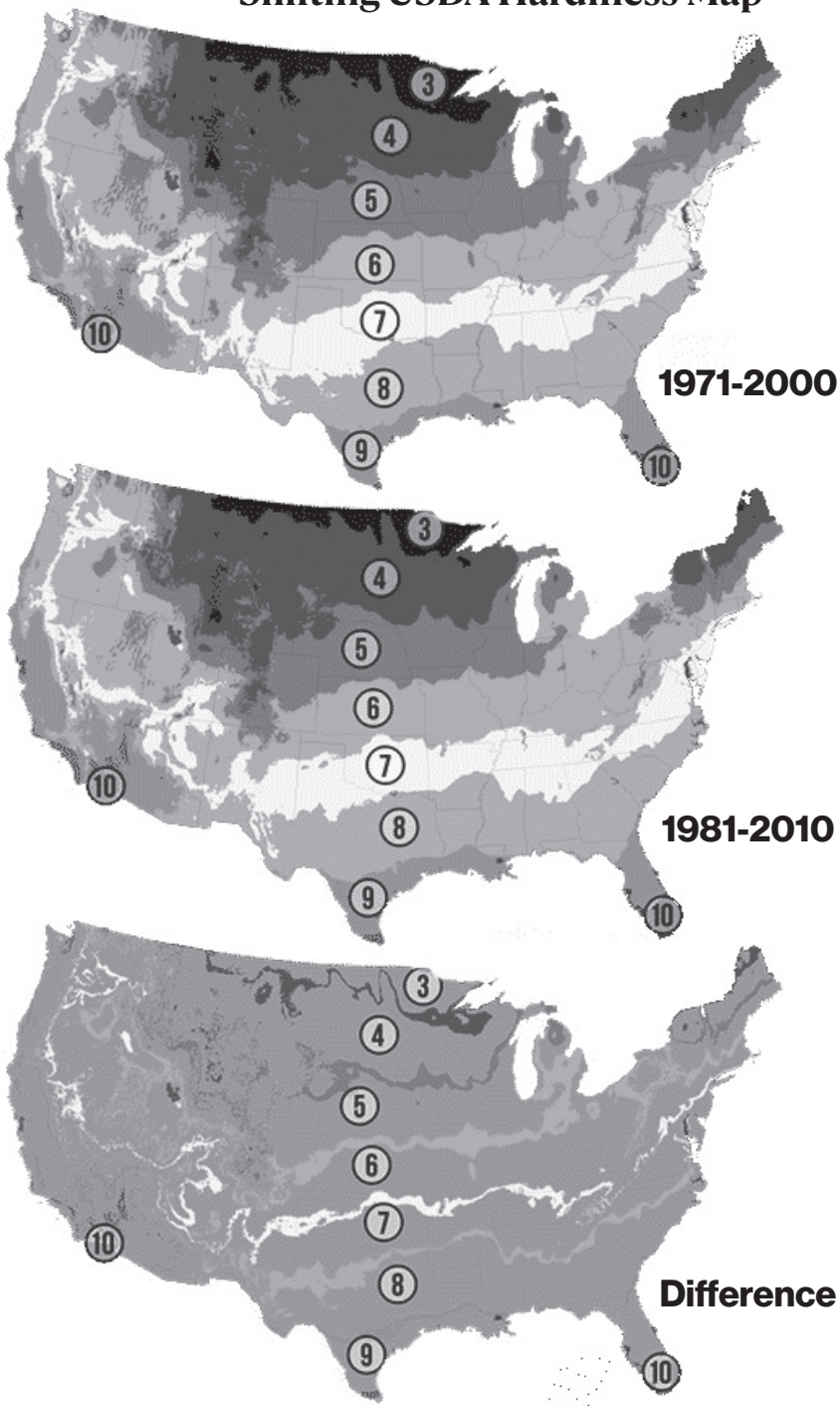
As long as one or two roots stay connected to the pup, success rates are very high.





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!

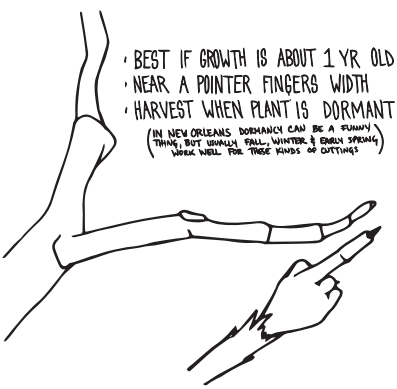
PROPAGATION IS A WAY PLANTS (AND OTHER ORGANISMS) INCREASE IN NUMBERS. LEARNING PROPAGATION ALLOWS US TO MAKE NEW PLANTS FROM A PLANT THAT IS ALREADY ADAPTED AND THRIVING IN A SPECIFIC ECOREGION. THERE ARE MANY DIFFERENT METHODS OF PROPAGATION, ONE WAY IS BY TAKING CUTTINGS.

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!

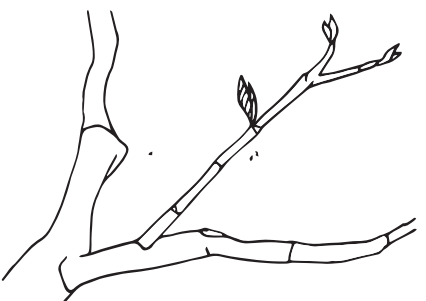
HARDWOOD

- BEST IF GROWTH IS ABOUT 1 YR OLD
- NEAR A POINTER FINGERS WIDTH
- HARVEST WHEN PLANT IS DORMANT

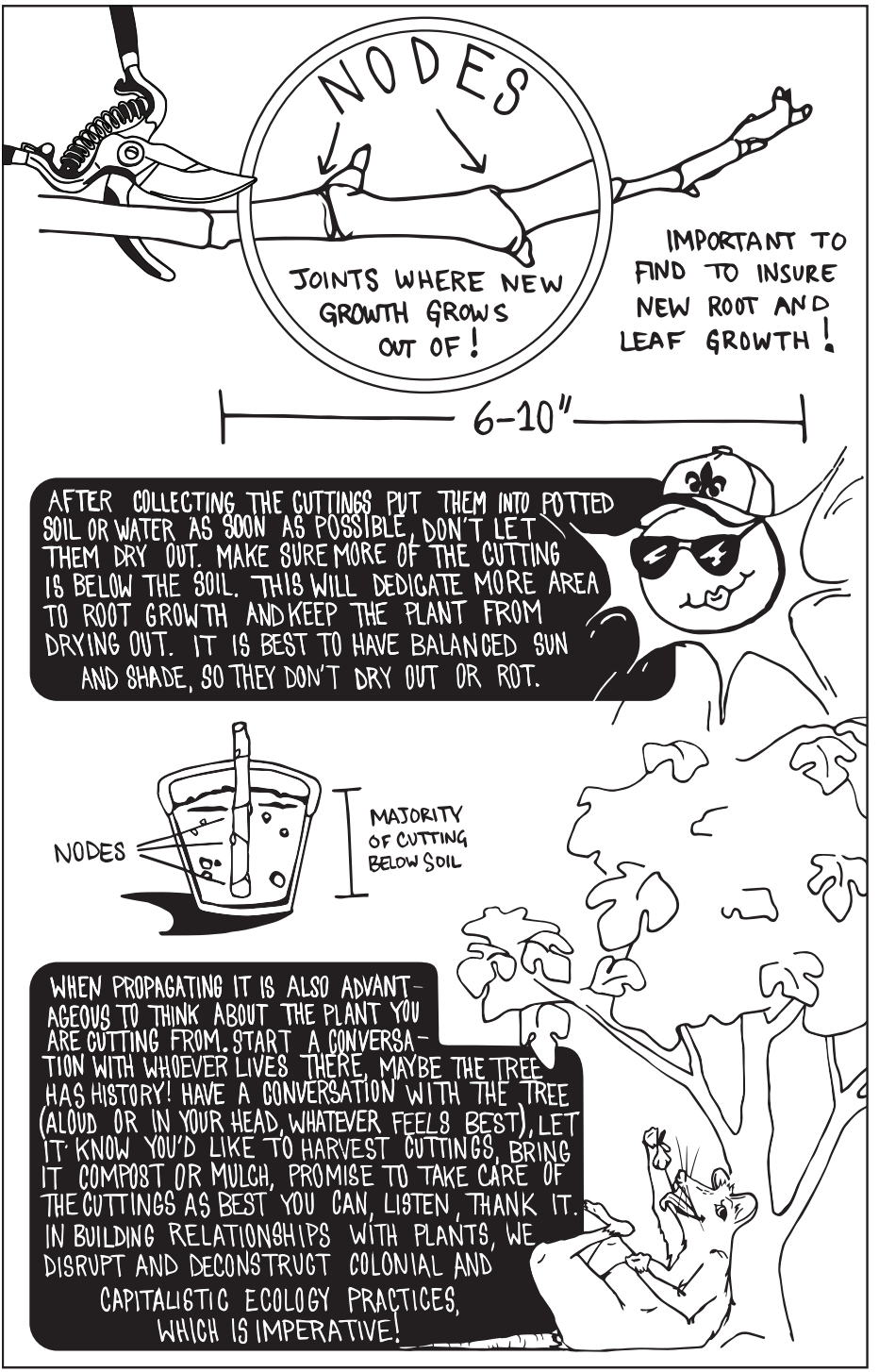
(IN NEW ORLEANS DORMANCY CAN BE A FUNNY THING, BUT USUALLY FALL, WINTER & EARLY SPRING WORK WELL FOR THESE KINDS OF CUTTINGS)



SOFTWOOD



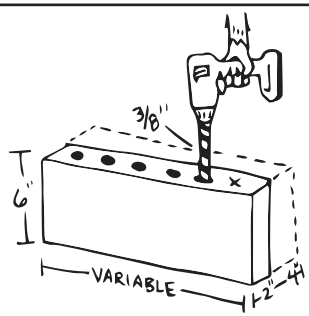
HARVEST FROM VIGOROUS NEW GROWTH IN THE SPRING (POSSIBLY SUMMER TOO IN NEW ORLEANS), BEST CUT IN MORNINGS WHEN PLANT IS FULL OF WATER.


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!

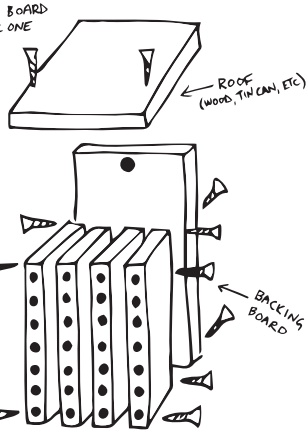
HOW TO: MASON BEE HIVES

Quickn DIRTY #2

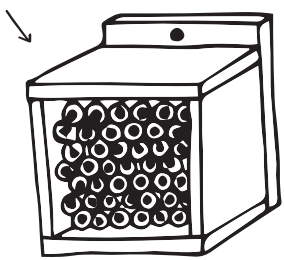
There are 130 species of Mason bees (Osmia) out of the thousands of pollinators throughout North America. The Mason bee is part of the Apidae bee family, which also includes the most familiar pollinator the honey bee (Apis melifera). Unlike honey bees who are a collective social bee, in hives of tens 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.



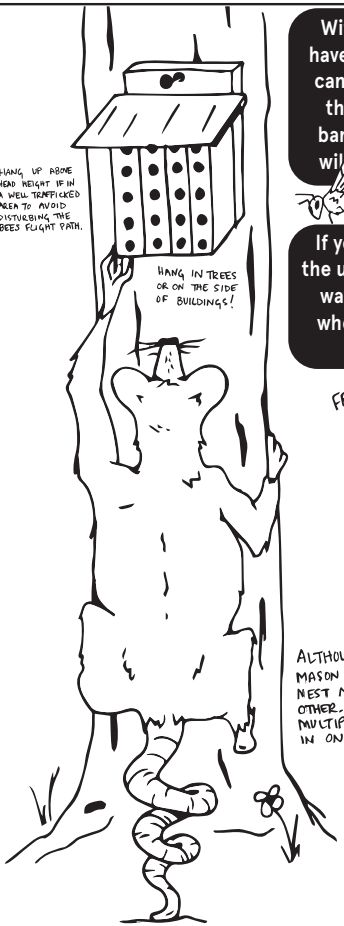
ANOTHER METHOD USING PAPER STRAWS OR HOLLOW BAMBOO (DONT USE PLASTIC, IT WONT BREATHE!). STRAWS OR BAMBOO CUTTINGS CAN BE BUNDLED INTO A WOODEN FRAME.

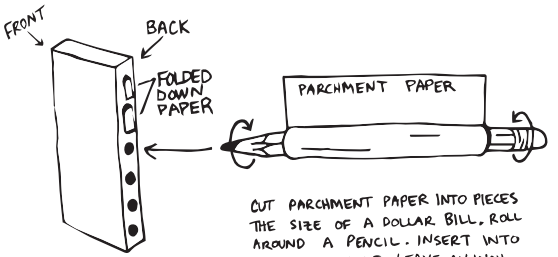


IF YOU DONT MAKE A ROOF BE SURE TO HANG THE HIVE UNDER AN AWNING, TO PROTECT IT FROM MOISTURE THAT MAY CREATE AN ENVIRONMENT AT RISK OF MOLD, FUNGUS & PESTS.

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.

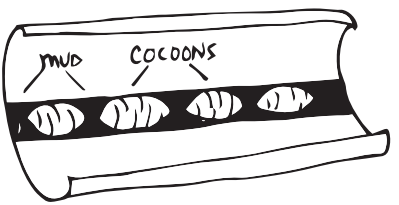
If you'd like to get even nerdier with Mason bees... and due to the unpredictability of an ever quickly changing climate, another way to insure that the bees are emerging from their cocoons when there is an abundant food source, is to line the wooden holes (or bamboo cuttings) with paper.





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

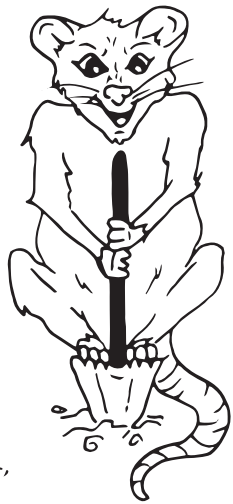
CUT PARCHMENT PAPER INTO PIECES THE SIZE OF A DOLLAR BILL. ROLL AROUND A PENCIL. INSERT INTO EACH HIVE HOLE. LEAVE AN INCH HANGING OUT THE BACK & FOLD OVER. (THIS IS WHERE YOU WILL PULL IT OUT WHEN IT GETS COLD).



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!

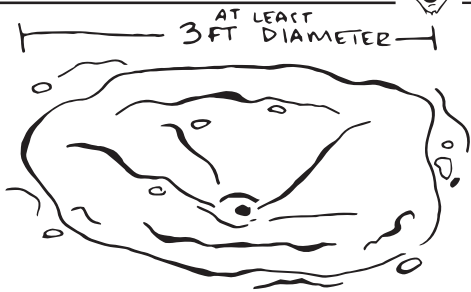
Quick'n DIRTY #3

HOW TO: BIO CHAR

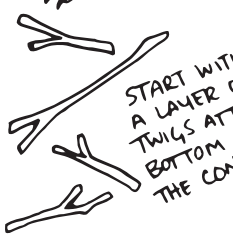


BIOCHAR IS CHARCOAL PIECES MADE FROM ORGANIC MATTER THAT HAVE PORES THAT RETAIN NUTRIENTS IN THE SOIL. THE CARBON COMPOUNDS FORM LOOSE CHEMICAL BONDS WITH SOLUBLE PLANT NUTRIENTS, LIKE AMONIA & NITROGEN, THAT ARE EASILY WASHED FROM SOIL BY RAIN LEAVING PLANTS DEFICIENT. BENEFICIAL MICROBES ALSO LIKE 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.

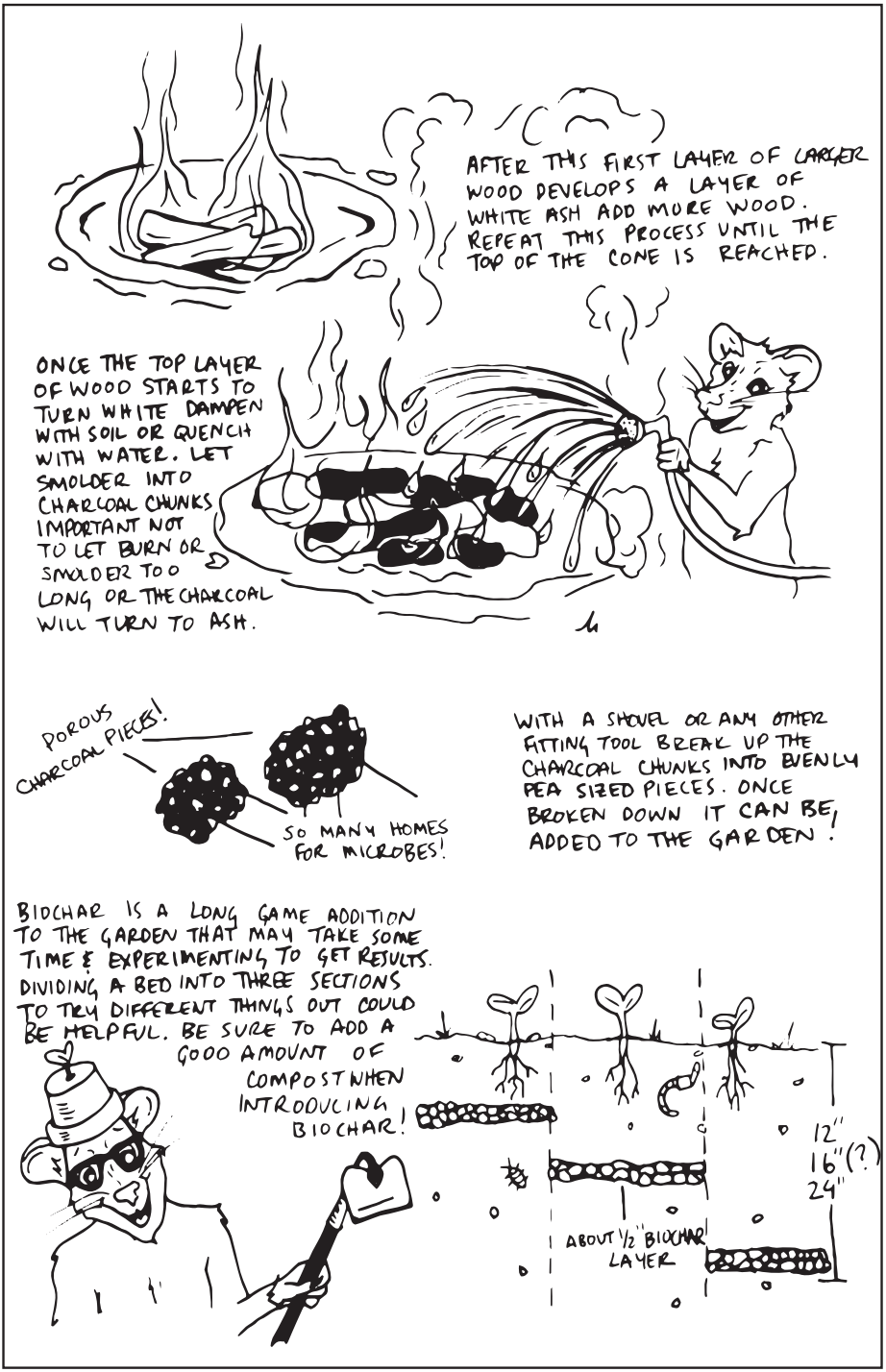


IN AN OPEN, CLEAR AREA DIG A CONE SHAPED PIT. SIZE CAN VARY BASED ON NEED. THE CONE SHAPE RESTRICTS OXYGEN FLOW TO THE FIRE SO THAT IT BURNS SLOWLY.



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.


AFTER THIS FIRST LAYER OF LARGER WOOD DEVELOPS A LAYER OF WHITE ASH ADD MORE WOOD. REPEAT THIS PROCESS UNTIL THE TOP OF THE CONE IS REACHED.
ONCE THE TOP LAYER OF WOOD STARTS TO TURN WHITE DAMPEN WITH SOIL OR QUENCH WITH WATER. LET SMOLDER INTO CHARCOAL CHUNKS. IMPORTANT NOT TO LET BURN OR SMOLDER TOO LONG OR THE CHARCOAL WILL TURN TO ASH.
POROUS CHARCOAL PIECES!
SO MANY HOMES FOR MICROBES!
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!
12"
16"(?)
24"
ABOUT ½" BIOCHAR LAYER

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broadcasting on the side of nourishment and care

www.partisangardens.org

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.*

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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

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

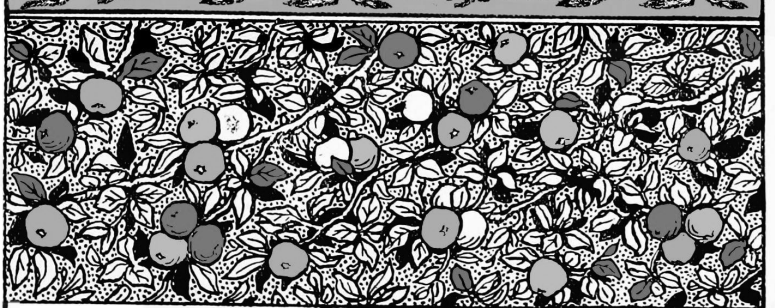
CEDAR MOON

DEEP FOOD

Join us for an intensive boot camp
with two main tracks:

Agroecology + Growing

Mass Cooking + Preservation



August 16-25 - Paoli, Indiana

experimentation - education - food autonomy

- please email deepfood@protonmail.com for updates -

MORE INFORMATION AND A WEBSITE COMING SOON

We appreciate everyone who contributed to make this fourth 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 "2025 Almanac:" and the pitch topic in the subject by **July 31st, 2024.**

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

Free PDFs of all issues of the Earthbound Farmer's Almanac can be found online

2024

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 reigning institutions' desperate attempts to appear in control at any cost make it clear that we must build the tools for our own autonomy and survival. There are alternatives to the antics of hoarding preppers and consumerist gimmicks. Instead, reconsidering our relationships to 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.

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