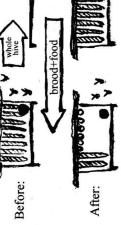
Easy to build (no table saw). Can place box on top | sugar syrup (1/1 by weight). Check in a week. for comb honey. Easy to inspect, split, or let swarm. Feeder: jar/bucket with holes in the lid, flipped over evening: spritz with water, pry off the lid while inside or on top. Feed 2/1 in fall to put on weight. swarm, cover, and feed them honeycombs or 2 gal. is accessible. Place Q cage in the hive, pour in the holding the Q cage. Check she is alive + sugar candy a screen box with workers and caged queen.

area, splitting, etc. Tanzanian top ber-straight sides bees exit and land on a branch, etc., and search for a with nectar, pollen, + brood, they swarm by mid/late at dark. Give honeycombs or feed protected cavity. Hang a box in the shade baited with spring. On a sunny midday, the old queen + half the Swarm trap (bait hive): When a hive fills its cavity mostly within 1.5 mile. Stop lawn mowing! sting. Cut/shake the branch into a box Catch a swarm: Bellies are full= docile, unlikely to comb and lemongrass to lure a passing swarm. Install a package:

proven hive for bees. Uninspectable for but keep more than I hive and I bee yard. If needed mud, dung, or sheltered. A simple, free way. # of hives viable will vary greatly with location Bee yard: Max sun, protected from wind, out of the forage millions of blooms in a 6+ mi radius, but HOW TO GET BEES

HOW TO GROW BFES

"Walk-Away Split": Pick up the hive and move to a larvae. Check in 4 weeks. The moved part: dequeen, build a queen by feeding royal jelly to several young split later, or expand for honey. Failed splits can be new location in the yard, place a new box where it was, move back a newer comb of open brood with bees (no queen) and a comb of nectar. They will recombined



Cage queen. Shake bees into a funnel. below the feeder bar. Supply candy or When shook down in the package box, honey comb for transit. Install within 3 pounds of bees is a thumb's width Shook swarm (3 pound package): 3 days. Give bees to friends, and bee the future of this!

Only you can raise the best bees.

Versatile for intensive or "do-nothing" beekeeping. Cover with 12oz canvas, insulation, 18"x18" tile. Combs grow from 8 doubled 12" skewers.

by Bevan, Quinby, Warre, etc. tree, a stacked box hive as used Comfort Hive - like a hollow epidemics. Blame capitalism, not the box. Internal: 11"x11", 6 to 18" tall

combs hang from. 120 sides limit side attachment. Kenyan top bar-trough with 1.25" wide bars that drum out bees 3 weeks after a swarm, when broodless crops. "Rent" honey~ 2lb / hive / season. Bees disease, thus made illegal in most US states. Harvest-provide a constant H2O source. Avoid most treated mashed bees, toxin/pathogen buildup combs, abated by placing empty bars by the brood Easy to inspect, no heavy lifting, calm bees, chesp. in reused combs (which enable large yields), swarm | Leave the lid cracked. All will go monopoly. Expensive parts, Fast nectar flows can cause early swarming + erratic suppression, genetic bottlenecking = a century of bec to the queen (or try again). Move The modern beckeeping Langstroth Frame Hive -• Skep- straw or wicker basket, coated in Select Hive types- Bee Gum (hollow log) 73

propolis (resin) coated inside

High moisture causes fermentation. Comb is eaten or crushed + strained, easiest when warm. Sealed honey brush, smoke bees off of wax-capped honey combs. lasts forever. Wax: put in solar melter or boil over Honey Harvest: Leave most for the bees! Shake, とうくの water (to prevent explosion). GROWING

comb in warm temps(thus eliminating disease/toxins) Mice: 1/2 inch screen keeps them out in colder temps. etc., especially the top surface to avoid condensation weak. Reduce entrance and move the hive to safety. Wintering: Insulate! Foam boards, bags of leaves, brood. Swarming or induced brood breaks cleanse Robbing: Neighbor bees will attack a hive that is Moving hives: at night when every bee is home, Wax moths: do no kill hives but eat unprotected Varroa destructor mites: reproduce in capped Bears: strap hives to pallets/use electric fence. move 3+ miles or the old bees will fly back.

bees must be terminated or temporarily starved to rid changing beekeeping from a common, DIY tradition forming bacteria turns pupae into stinky, stringy goo. Black scale on cell floor. Combs MUST be burned; antibiotic use, and laws against uninspectable hivesmites/viruses drift between hives if left unchecked. spores. AFB initiated hive registration, inspectors, American Foul Brood: highly contagious, sporemites and diseases they vector. Otherwise, to a lost art in the early 20th century.

smudge. OF smoker knife), pry bar (hive tool, screwdriver, honey Capped 76 (bee broad) capped brood ermented polica (unripe honey (pupae) open nectar drone brood Hive (Insecta: Hymenoptera: Apidae) queen cel Kenyan Top Bar

Comfort Hive

the one you make yourself. furthest from the entrance. The best hive design is and close to a 1-2 inch defendable entrance, honey Insulated, 10 gallon cavity. Active brood nest is 93F Apis mellifera

can save us from self-destruction. But buying/moving out-of-balance system. Faith in nature's resilience is trends of sterility and monotony, certainly are. Call it Pests and diseases are not causes but symptoms of an to grow your own queens and bees, consume less and Environment / Methodology / Genetics / Beeliefs Honey bees are not in danger, but humans, with our populations. Instead: seek out local survivors, learn interest in a healthy, diverse world. Bees' lessons produce more. Grow food and steward life. Study poorly adapted stock, both of which affect local biology and the beautiful cycles already in place. People Collapse Disorder. Keeping honey bees bees between bioregions can spread disease and connects us to a super organism that shares our too easily replaced by fear and phony controls. Keep more than one hive. Simulate swarming.

Replace old combs with bee-made cells. Keep hives those places. Like bees (who don't have egos), stick diversity. Keep it simple. Bee it, teach it to young people, experience a meditation as the true harvest. status or money. Know the magic in a single grain with your friends, rise above conflict, and sing to You can live in wonder and wealth regardless of in nourishing places; protect those places; create SWARM THE STATE!! www.anarchyapiaries.org of pollen. And...

of the hive. Egg → emerging adult ~ 21 days.

Day 1-3 - Cleaner. Day 4-6 - Feeder. Day 6-7- in the Q's entourage. Day 7 - 12- Wax builder. Day 14Guard duty. Day 15 on- Nectar/pollen/water/resin gatherer, evaporator, scout + waggle dancer (imparts forage sites). Lays drone eggs when no brood present. Avg. life span 5-6 weeks, longer in winter.

Drones—

the boys

10-15% of hive. Egg→emerging adult~23 days. Large Tory goes on mating flight, mates with 20+ drones, or returns. In peak of season lays 2000+ eggs/day. hive and starves. Life span 4-5 weeks. to see virgin queen. In nectar dearth is ejected from only unfertilized eggs (drones). Life span 2-3 years jelly diet. Day 1-stings any other queen. Day 7pupae to emerging virgin queen ~ 16 days. Royal possibly mate. Does not forage or sting. Large eyes behavior. Day 14+ flies daily to congregation area to from worker brood + is culled through hygienic bees or is superseded by new queen. Eventually lays Dormant in winter. 2nd Year-swarms with half the domed brood cap. As larvae draw "rasites away

Abdomen 2x length of a worker bee Queen- the mama Apis mellifera Biology

Save the humans! Beecause bees don't need it.

Our sweet freedom comes when we accept that life has no big purpose or meaning- we know nothing. Control is futile. We are just here, side by side. It is time to stick together.

Now we are starting to think like bees...

Timeline of Beekeeping History - The good, the bad, and the bugly 120-150 million years ago- insects socialize, bees evolve from wasps, plants produce nectar (now over 20,000 species of bees exist)

15,000 BC- humans depict bees and honeycomb in African caves 5000 BC - evidence of domestic beekeeping in Ancient Sumer

3100 BC - Bee hieroglyphs and hive migration on the Nile in Egypt

350 BC - Aristotle observes divisions of labor + falsely notes a "King Bee," internal hive inspections

1500s - hives brought to South/Central America, likely FL, by the Spanish

1586 - queen sited as the female egg layer, L M de Torres (Spain)

1609 - The Feminine Monarchie C. Butler (UK)declares the queen female

1622 - successful import of hives from UK to Jamestown, VA

1682 - George Wheler (UK) sees movable top bar hives in Greece

1789 - Francis Huber observes his Leaf Hive by using beespace

1838 - Johann Dzierzon (Poland) invents a frame hive, describes mating

1852 - LL Langstroth patents frame hive. US bee industry expands.

1857 - wax foundation invented by Johannes Mehring (Germany)

1868-9 - mysterious bee losses reported in KY, TN

1877 - hoping more honey, Root's large cell foundation becomes standard

1888 - G. M. Doolittle grafting larvae in Scientific Queen Rearing

1891 - "May Disease" coined to describe disappearing bees

1896 - "Disappearing Disease" coined to describe mysterious losses

1905-1919 - "Isle of Wight" Disease, UK, causes 90% loss 3 times, later identified as Tracheal mites

1922 - US bans foreign bee imports, hives with fixed combs outlawed in NY and other states, inspection mandated

1926 - first artificial insemination of a queen bee by L. Wilson

1948 – Abbe Warre (France) People's Hive in Beekeeping for All

1953 - Karl von Frisch describes the bee dance language

1970s - plastic comb foundation; corn syrup becomes major feed supplement; US Peace Corps popularizes Kenyan top bar hives abroad

1975 - "Disappearing Disease" observed in 27 states and Mexico

1976 - Bee die offs in ID from Penncap M pesticide picked up as pollen

1984 - Trachael mites discovered on FL bees, major losses

1987 – Varroa mites discovered in FL, major losses

1994 - Imidicloprid, a systemic pesticide, released in the US

1994- USDA imports eastern Russian bees to breed mite resistance

1995-6 - mystery bee deaths in PA and ND

1999- Imidacloprid banned in France after bee deaths on sunflowers

2003 - Clothianidin, a systemic pesticide, released in the US

2003 – Lawsuit- ND Beekeepers vs Bayer for '90s bee deaths after sunflower bloom. Dismissed in 2008.

2004 - US opened to AU package bee imports for CA almond pollination.

2006 - Bee genome decoded, Baylor College of Medicine, TX

2007 - Colony Collapse Disorder (CCD) coined, linked to neonic pesticides and nosema cerana (gut microbe)

2008 - systemic pesticides banned in Italy, Germany, Slovenia. In US, NRDC sues EPA for withholding testing yet allowing release. No action.

2010 - Beeologics produces the first RNAi medicine, which alters immune response, to combat IAP Virus.

2011 - Beeologics is bought by Monsanto Corp.

2012 - Worst winter losses/honey production on US record

2013 - EU puts a 2 year moratorium on systemic pesticides

2014 - Canadian beekeepers sue Bayer \$4.5mil in bee damages

DON'T PANIC

2018-19 - repeated record high bee losses in US

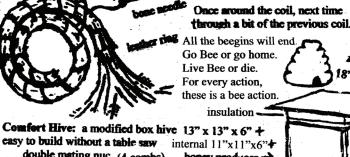
2019 - Dr. Sammy Ramsey shows varroa feeds on fat bodies, not hemolymph as thought, proving they are werewolves, not vampires.

for more see Dennis van Engelsdorp, and Eva Crane

Bee forage (northeast): Biannual/perennial: asters, blackberry, catnip, chives, clovers, comfrey, coreopsis, crocus, dandelion, Echinacea, globe thistle, goldenrod, hazelnut, anise hyssop, knapweed, lavender, mints, monarda, motherwort, oregano, plantain, pussywillow, rose, rosemary, rudbeckia, Russian sage, sedum, sunflower, thyme, vetch. Annuals: arugala, basils, birdsfoot trefoil, borage, buckwheat, flax, cosmos, Japanese knotweed, milkweed, mustard, phacelia, poppies, purple loosestrife, scabiosa, zinnia. Trees: red bud, maples, willows, hawthorne, cherry, plum, oaks, apple, locusts, dogwood, sumac, tulip poplar, boxelder, linden, catalpa, ailanthus, golden rain tree.

A swarm in may is worth a load of hay / A swarm in June is worth a silver spoon / A swarm in July isn't worth a fly

How to make a skep: Anyone can do it! A hollow straw (rye) works well. Shove straw through a ring to maintain width while wrapping with cordage or split cane. Coat with clay, mud, straw mixture, or cow dung to protect.



double mating nuc (4 combs) top view divider single screw rough cut lumber bamboo skewers comb built on (doubled) bba skewer screen bottom 12"x12" tile 7/8" entrance (corked)

Bait Hive: An empty box may attract a passing swarm. Tom Seeley (Cornell) says bees like: 10 gallon cavity, securely 10+ feet up, visible but well protected, shaded, south facing bottom entrance 1.5" wide, old comb/propolis present, 100 yards+ from swarming hives. "Vacancy" sign. Lemongrass oil(citrol) helps scout bees locate. Like fishing; you never know Beelining: Set up 1 or more feeding stations with honey/sugar. After feeding, follow direction of homeward flight, (dust with flour to slow flight and aid visibility upon release). Draw the flight path from each station on a map and intersect beelines to locate. OR mark the forager and time the return to the station to calculate distance. The worker flies a 4 minute mile and rests for about 1 minute in the hive before returning to station.



Removing bees from structures - Best in spring with time for the hive to recuperate. Walls and obstructions must be removed to access all combs. Too much smoke will make the queen run, so start on hive periphery when possible. Honey/nectar goes to buckets to feed back later or for mead. The brood is rubber-banded to bars or frames; the bees are scooped or vacuumed; the box, hopefully with queen, is left in place until dark. If the bees run to another cavity, tarp over the whole space. Allow the bees to recluster in the original spot, then try again the next day. Seal repairs completely. Propolis - anti-bacterial, anti-viral, anti-fungal, propolis resins coat the hive + sterilize it. Tincture in 70%+ alcohol for 3 weeks (1 to 1 by volume), shake and strain through cotton cloth. Dilute with distilled H2O- immune system booster, throat spray, toothpaste, varnish, or powder in capsules. Making Mead - Dirt sinks, bugs float, alcohol kills everything. 3 lbs (1 quart) honey per gallon of warm water, stir well, add a dry yeast, (cuvee, champagne, or bread yeast). Wild yeast or natural fruit yeasts work, but might make a delicious honey vinegar. Seal with airlock or balloon to let CO2 out but no fruit flies in. NO metal. Store in a warm, dark place, cap/cork after 1 year. Enjoy ancient alchemy and make friends. Bee venom therapy - Stings are the best part of keeping bees. If you don't get stung the honey doesn't taste as sweet. Remove stingers immediately, unless in medicinal practice. Acupuncture points, joint problems, aches and strains, MS, arthritis, certain diseases, plasma production, allergies, mental focus. Plantain, burdock leaf keep down reactions, also food, rest, and mead. Resources: anarchyapiaries.org, bushfarms.com, beesource.com, biobees.com, ibra.org.uk/, beesfordevelopment.org, The World History of Beekeeping and Honey Hunting - Eva Crane, The Practical Beekeeper -Michael Bush, The Complete Idiots Guide to Beekeeping - Dean Stiglitz, Laurie Herboldsheimer, The Buzz About Bees - Juergen Tautz, Beekeeping

for All - Abbe Warre, A Book of Bees - Sue Hubbel, Breeding Super Bees -

Steve Taber, Contemporary Queen Rearing - Harry Laidlaw, Honey Bee

Democracy, Following the Wild Bees, The Lives of Bees - Tom Seeley