

Waking Up the Hives

Spring Prep & Safety for New Beekeepers

Santa Cruz Bee Guild

Spring 2026

Today's Agenda



Spring Timeline

What to do in Feb–April for NorCal hives



Essential Equipment

Gear checklist for your first season



Beekeeping Safety

Stings, heat, fire, PPE & first aid

PART 1

Spring Timeline

Waking up your hives in Northern California



January: Assess & Plan

First-Year Beekeeper

- Read and take classes
- Talk to beekeepers, select a mentor
- Order packages or nucs
- Order & prepare equipment
- Determine feeding & IPM protocols
- Practice lighting your smoker

Experienced Beekeeper

- Check colony survival & strength
- Order packages/nucs as needed
- Clean dead-out equipment
- Determine feeding & IPM protocols
- Study swarms and splits
- Inspect if weather permits – don't break cluster



February: Feed & Monitor



Continue checking colony survival and strength



Feed syrup and pollen as needed



Assess mite thresholds in larger colonies; treat as needed



Watch for pollen on returning foragers – a sign of colony activity



Prepare additional equipment for swarms and splits



IPM: Integrated Pest Management should be ongoing



March–April: Expansion Season

March

- Provide space/supers for expanding colonies
- Evaluate queen laying pattern
- Assess mite thresholds and treat as needed
- Consider adding drone frame; cull every 3 weeks
- Remove entrance reducers as weather stabilizes

April

- Install packages and/or nucs (first-year)
- Ensure presence of egg-laying queen
- Feed packages syrup to stimulate wax production
- Monitor for queen cells / swarm prep (experienced)
- Split strong colonies; consider queen rearing

PART 2

Essential Equipment

Getting set up for your first season



The Hive: 8-Frame Langstroth

Bottom Board

Screened bottom preferred for ventilation and mite monitoring

Deep Brood Boxes (x2)

Where the queen lays eggs and brood develops

Medium Super (x1+)

For honey storage; add as colony grows

Frames & Foundation

Wax-coated foundation gives bees a head start

Inner Cover

Provides ventilation; sits between super and outer cover

Telescoping Outer Cover

Protects the hive from rain and elements

Tip: 8-frame hives are lighter and easier to manage than 10-frame for backyard beekeepers

Essential Tools

Smoker

Calms bees by masking alarm pheromones. Use natural fuel like pine needles or burlap.

~\$16

Hive Tool

Essential for prying apart frames and boxes. J-hook style is popular.

~\$10

Bee Brush

Gently removes bees from frames during inspections.

~\$8

Top Feeder

Feeds syrup directly above the cluster. 8-frame unpainted version.

~\$44

Frame Grip

Helps lift frames securely, especially for new beekeepers.

~\$12



Personal Protective Equipment (PPE)

Item	Standard	Highly Defensive Bees
Head Veil	Always recommended; cloth/mesh that doesn't touch face	Same – critical
Gloves	Tight fitting, good dexterity, wear if needed	Bee-proof with forearm seal at elbow
Bee Suit	Jacket w/ zippered veil, long loose pants, sealed ankles	One-piece, zipper + velcro closures, full ankle coverage
Shoes	Closed toe, ankle covered	Sting-proof ankle boots



Avoid black/red clothing, fuzzy materials, and fragranced products – these can trigger defensive behavior. Always wash stung PPE before reuse.

Starter Budget Estimate

Item	Est. Cost
8-Frame Hive Kit (2 deep + 1 medium, frames, foundation)	\$139–\$149
Bee Jacket or Suit with Veil	\$60–\$80
Gloves (nitrile disposable or beekeeping gloves)	\$8–\$20
Smoker + Tool Kit	\$16–\$25
Top Feeder (8-frame)	~\$44
Allergy Medication (antihistamines, on hand)	~\$5
Bees (package or nuc)	\$150–\$250
ESTIMATED TOTAL	\$420–\$575

Prices are approximate. Look for American-made options when possible.

PART 3

Beekeeping Safety

Protecting yourself and your community

Key Safety Risks in Beekeeping



Bee Stings & Anaphylaxis

The most common risk; can be life-threatening for allergic individuals



Heat Exposure

PPE reduces breathability; heat exhaustion and heat stroke are real dangers



Fire

Smokers are ignition sources; California fire weather adds urgency



Heavy Lifting

Full supers can weigh 60+ lbs; back injuries are common



Pesticide Exposure

Both from in-hive treatments and external agricultural applications



Psychosocial Stress

Pressure, fear, harassment in group settings can compromise safety

Highly Defensive Honey Bees

Warning Signs

- Multiple head butts from bees
- Bees quickly raise stingers and release venom posture
- Rapid succession of stings after first sting
- Stinging animals or people in surrounding area

Aggravating Factors

- Fragranced products (banana/alarm pheromone scent)
- Unwashed PPE with sting pheromones
- Predation by skunks, ants, wasps
- Dearth (lack of forage) or queenlessness
- Vibrations, rough handling, weather extremes

Bees fly at 20 mph and can pursue for 1/4 mile+. They sense people 50+ feet from the hive.

Honey Bee Stings: What to Know

5%

of population will have
a systemic allergic reaction
in their lifetime

32%

risk of systemic reaction
for beekeepers specifically

~33

fatal insect venom
anaphylaxis cases per year
in the USA

Key Risk Factors

- Long gaps between stings may predispose for more severe reactions
- Fewer than 10 stings per year may increase risk of systemic reaction
- Half of all fatal reactions occur with no prior sting reaction history
- Household members of beekeepers are at higher risk than general population

Response to Stings

Single Sting

- Do NOT swat or flail arms
- Smoke the stung area to mask pheromones
- Smoke and assess aggressiveness of colony
- Remove stinger ASAP (scrape with nail, hive tool, or tweezers)
- Clean area with soap/water or alcohol

Multiple Rapid Stings

- Close hive if able
- Do NOT swat or flail
- RUN in a straight line as far away as possible
- Cover face/neck if no PPE (don't impair escape)
- Seek physical separation (get in car, drive away)
- Do NOT hide under water – bees will wait



Anaphylaxis: Know the Signs – CALL 911

Signs & Symptoms

- Lightheadedness, dizziness, confusion
- Flushing, hives, rashes
- Rapid breathing, shortness of breath
- Nausea, vomiting
- Rapid heart rate, low blood pressure
- Feeling of impending doom

First Aid Steps

1. Lay person flat (sit if breathing difficulty)
2. Offer their epinephrine auto-injector
3. Call 911
4. Call their emergency contact
5. Second epi dose if no improvement in 5 min
6. Transfer to hospital (observe 4+ hours)



California requires Epinephrine Certification for non-medical professionals to administer to non-family members. Search “epinephrine auto injector certificate” for online courses.

Heat Exposure & Fire Safety

Heat Exposure

- Plan visits to avoid peak heat
- Hydrate day before AND during
- Replace electrolytes lost through sweating
- Have shade or vehicle with AC nearby
- Bring water bottles + cool water access
- **Heat stroke = Call 911 immediately**

Fire Prevention

- **NEVER put smoker on the ground**
- Transport smoker in metal bucket with lid
- Never empty smoker contents on ground
- Clear vegetation around hives (gravel, weed barrier)
- Keep fire extinguisher on site (ABC type)
- Check CA Fire Weather before visiting apiary
- Bee suits are flammable – remove if fire occurs



First Aid Kit for the Apiary

- Rubbing alcohol or hydrogen peroxide
- Chemical cooling packs
- Antihistamine (e.g. Benadryl)
- Tweezers
- Antibiotic cream or ointment
- Non-adhesive dressings + paper tape
- Gauze wrap or self-adhering bandage
- Elastic bandage
- Epinephrine auto-injector
- Charged cell phone

Store epi-pens at 68–77°F, away from light and extreme temps. Check expiry regularly (most expire within 1.5 years).



Your Apiary Safety Plan

Document Hazards

Identify site-specific risks: terrain, wildlife (rattlesnakes, ticks, poison oak), flood potential

Emergency Communication

Confirm cell service; have a buddy or tell someone your location and check-in time

Exit Routes

Know alternate routes off the property; identify nearest hospital

Site Info for 911

Post apiary address, GPS coordinates, and landmarks for first responders

Buddy System

Beekeep with a partner when possible – check PPE, monitor condition, share lifting

Your Spring Prep Checklist

- ✓ Order bees (packages or nucs) – don't wait!
- ✓ Assemble and paint hive equipment
- ✓ Purchase PPE: veil, jacket/suit, gloves
- ✓ Get smoker, hive tool, top feeder
- ✓ Stock first aid kit with epi-pen and antihistamines
- ✓ Write your apiary safety plan
- ✓ Find a mentor or buddy through the Guild
- ✓ Register hives with BeeWhere for pesticide notifications

Resources

UC Davis E.L. Niño Bee Lab

cambp.ucdavis.edu – NorCal beekeeping timeline, classes, CAMBP program

CAMBP Beekeeping Safety Guide

Free public module covering all safety topics in detail

BeeWhere

Register hives for automatic pesticide application notifications

California Fire Weather

Check conditions before apiary visits during fire season

Randy Oliver – Tips for Handling Bees

Excellent video resource (~1 hr) on gentle hive management

Santa Cruz Bee Guild

Your local community – mentors, equipment sharing, and group hive inspections

Questions?

Thank you for keeping bees safely!

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