

# FROM SEED TO WEED

How to grow native narrowleaf milkweed from seed

A two-year journey from tiny seed  
to a monarch-ready perennial

**OHCC Garden Club**



# Why native milkweed?

## Milkweed is not just any plant.

- It is the ONLY host plant for monarch caterpillars.
- San Diego County has three native milkweeds.
- Today we'll focus on narrowleaf milkweed (*Asclepias fascicularis*).

### THE GOAL

Not a perfect ornamental plant — a perennial habitat plant that gets better with time.



Caterpillar feeding

Source: Resource Conservation District of Greater San Diego County

# Step 1: Obtain the Seeds

## Where to obtain seeds

To get free native milkweed seed packets send an email to:

**[pollinators@rcdsandiego.org](mailto:pollinators@rcdsandiego.org)**

with your name and address!

Seeds are sent out September through March, during planting season.

OR purchase locally developed seeds

### LOCAL ORGANIZATION

Resource Conservation District of Greater San Diego –  
San Diego Native Milkweed Project

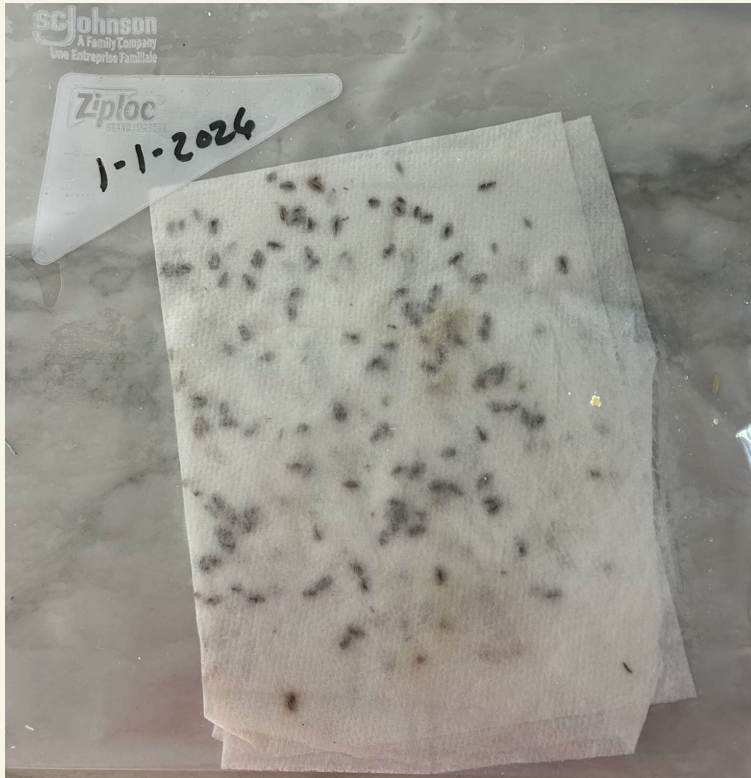


San Diego Seed Company • *Asclepias fascicularis*

Source: Resource Conservation District of Greater San Diego County

## Step 2 • Give the seeds a winter

Cold stratification mimics cool winter conditions



### The simple refrigerator method

- Moisten a sterile medium — a damp paper towel works.
- Place seeds + moist medium in a sealed plastic bag.
- Refrigerate at about 40°F for at least 30 days.
- Plant promptly after stratification.

#### WHEN? WHY?

November–January is ideal for a spring planting. Cold stratification increases germination rates.

Source: RCD of Greater San Diego County, “How to Cold Stratify *Asclepias fascicularis* Seeds”

## Step 3 • Sow the seeds

Milkweed wants moisture — not a swamp



### A reliable container setup

- Use containers with drainage holes.
- Use a well-draining seed-starting mix.
- Sow about ¼ inch deep.
- Keep the mix consistently moist while germinating.
- Give seedlings at least 6 hours of direct light — or use a grow light.

### DON'T BURY THEM DEEP

Fine seeds need a light covering.

## Step 4 • Light matters

Your seedlings need enough light to grow sturdy, not spindly



### If you start indoors

- Use a grow light when a bright window isn't enough. (6+ hours)
- Keep the light close enough to prevent "stretching".
- Rotate trays if light is uneven.
- Move seedlings gradually into outdoor conditions (weather dependent).

**THINK “SUNNY + STEADY”**

Consistency beats perfection.

## Step 5 • "Patiently" tend your seedlings

This is the stage where patience pays off



### What you're looking for

- New leaves continue to appear.
- The plant stays green and upright.
- Roots are developing even when the top looks small.
- Don't rush transplanting — let the plant build strength.

### THINK ROOTS, NOT SHOOTS

Year one is largely about building roots.

## Step 6 • Pot up — and move them outside

Give the young plants room to build their root system



### Transition time

- Harden off indoor-grown plants before transplanting - move outdoors.
- Carefully transplant into larger pots
- Avoid breaking up roots
- Choose a partially sunny spot, for now

### A GOOD TARGET

By 2-3 months, seedlings can be ready for a larger container or the garden.

## Step 7 • Keep growing

Yup, still all about the roots



### Early growth stages

- Plants gradually get bigger
- Surprisingly slow process at this stage (for a weed!)
- Move to a full sun location

## Step 8 • Pot up again – or go to ground

Plants are becoming more mature



### Plant in bigger pots or in the ground

- Well into summer by now
- Keep upgrading pot size or plant in the ground – can go straight to large pots
- Use natural fertilizer such as **fish emulsion** to promote growth

### SEVERAL MONTHS LATER...

Plants are getting to be a good size

## Step 9 • Completing the annual cycle

Flower → pod → seed → dormancy → more milkweed



### SEED COLLECTION

Watch mature pods closely — when they begin to split, the wind is ready to take the seeds, or collect them for your next starter batch.

Source: RCD of Greater San Diego County • San Diego Native Milkweed Project

# “OH NO! THE CATERPILLARS ATE THEM!”

Case study: At the Butterfly Park



## FIRST YEAR

- Many 1-gallon plants were planted
- We were soon overwhelmed by hungry caterpillars.
- Plants were stripped bare and we had to keep buying and planting more to keep up

## SECOND YEAR +

- Established plants came back bigger and were much better equipped to tolerate feeding.
- We expanded our planted milkweed range
- Every year the plants double or triple in size. Now they really behave like WEEDS!

### THE MINDSET

Year one: Setting the stage.

Year two and on: functioning habitat.

Source: RCD of Greater San Diego County • First-year caterpillar exclusion guidance

# Protect some of your plants

Give the young plants a chance to grow unimpeded



Plants in Pots protected by a mesh cage

## Year One Plan

- Protect some first-year plants with fine mesh.
- Let them grow in a sunny location
- Water when needed
- Plant enough milkweed that the caterpillars have somewhere to eat.
- And buy several mature plants for this year's caterpillars (and to restart again next year)
- Cycle eaten plants into the mesh shelter to re-grow

**BUY for NOW... GROW for LATER**

Source: RCD of Greater San Diego County

# Protect some of your plants

In-ground plants also need protection



Plants in the ground protected by a mesh cover

## Year One Plan

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**BUY for NOW... GROW for LATER**

## Year One • Grow the roots

The first year is establishment — not the end game



**This is why a first-year plant can look tiny — and why losing all its leaves to caterpillars can be a real setback.**

### THE RULE

Protect the plant long enough to establish the perennial root system.

## Year Two • Let it thrive

The second year is expansion — the plant comes into its own



**With a strong root system in place, the plant rebounds bigger, bushier, and better able to support pollinators.**

### THE RULE

Healthy roots today create habitat for years to come.

# Should I plant in pots or in-ground?

Bigger is better



## Where to plant

- Best case: Plants in the ground grow the largest root network, create the best habitat
- But large pots also work well - grow multiple plants in each pot
- Can plant multiple pots

**DO WHAT WORKS FOR YOU AND  
YOUR GARDEN**

# The big Year-Two transformation

When the plant grows back it's much bigger the second year



## What happens underground

- 1 Dormant** Top growth dies back.
- 2 Re-emerge** New shoots come from established roots.
- 3 Bushier** More growth = more available foliage.
- 4 Habitat** Now the plant can support more monarch use.

# Common problems — and the fix

Most milkweed failures are timing problems, not gardening talent

## **Nothing germinated**

Be patient; use cold stratification and keep the mix moist.

## **Seedlings are leggy**

Increase light or move the grow light closer.

## **Plant disappears**

Check whether caterpillars ate it — roots may still be alive.

## **Plant looks dead in winter**

Dormancy is normal; watch for spring re-emergence.

## **Young plant is covered in caterpillars**

Protect first-year plants and/or plant more milkweed.

**REMEMBER-** Milkweed is a perennial. Think roots, not just leaves.

Source: RCD of Greater San Diego County

# The whole process in three lines

And the calendar on the next page is your cheat sheet.

## 1 GROW THE ROOTS

Year one is about establishment.

## 2 FEED THE CATERPILLARS

Once established, let the plant do its job.

## 3 TRUST THE PROCESS

Dormancy is normal. Year two is where it gets exciting.

**FROM SEED → TO SEEDLING → TO ROOT SYSTEM → TO WEED**

Thank you • Questions?

# From Seed to Weed

## GROWING NATIVE MILKWEED

IN SAN DIEGO COUNTY



Native milkweed is a perennial.  
Year one is about building strong roots.  
Year two and beyond is when the plant  
becomes the abundant host plant  
monarchs need.



Cold / Dormant  
Grow / Establish  
Monarch Season  
Flower / Seed

### NOTE:

You can direct sow outdoors Oct–Apr and let nature provide the cold stratification.

| MONTH | YEAR 1 – ESTABLISH THE PLANT<br>Goal: Grow roots and survive the first year                                                                     |  | YEAR 2 – BUILD THE PLANT<br>Goal: More growth, more branches, more caterpillars!           |  |
|-------|-------------------------------------------------------------------------------------------------------------------------------------------------|--|--------------------------------------------------------------------------------------------|--|
| JAN   | <b>STRATIFY</b><br>If starting indoors, seeds in refrigerator 4–6 weeks.                                                                        |  | <b>WAIT &amp; WATCH</b><br>Plants may still be dormant. Don't assume they're dead.         |  |
| FEB   | <b>SOW</b><br>Plant stratified seeds in deep containers or directly outdoors.                                                                   |  | <b>NEW GROWTH</b><br>Watch for shoots emerging from the dormant root system.               |  |
| MAR   | <b>SPROUT</b><br>Give seedlings sun, moisture and patience.                                                                                     |  | <b>GROW</b><br>New shoots develop from the established roots.                              |  |
| APR   | <b>TRANSPLANT</b><br>Move sturdy seedlings into the garden after hardening off.                                                                 |  | <b>FEED &amp; GROW</b><br>Plant is now capable of producing much more foliage.             |  |
| MAY   | <b>ESTABLISH</b><br>Water deeply and regularly while roots develop. Keep weeds down.                                                            |  | <b>MONARCH SEASON</b><br>Watch for eggs and caterpillars. Let them eat!                    |  |
| JUN   | <b>GROW</b><br>Keep young plants watered as needed. Don't panic if small.                                                                       |  | <b>FEED</b><br>Caterpillars may dramatically reduce foliage.                               |  |
| JUL   | <b>PROTECT</b><br>If caterpillars completely strip tiny first-year plants, consider protecting some plants while leaving others as host plants. |  | <b>LET THEM EAT</b><br>This is what you grew the milkweed for!                             |  |
| AUG   | <b>KEEP GROWING</b><br>First-year plants may flower, but don't expect it.                                                                       |  | <b>FLOWER &amp; SEED</b><br>Established plants are more likely to flower and produce pods. |  |
| SEP   | <b>BUILD ROOTS</b><br>Continue caring for plants; think long-term rather than expecting a huge plant.                                           |  | <b>COLLECT SEED</b><br>Watch pods and collect mature seed when they begin to split.        |  |
| OCT   | <b>NEW CYCLE</b><br>Excellent time to direct-sow another batch of seeds.                                                                        |  | <b>DORMANCY BEGINS</b><br>Plants naturally start shutting down.                            |  |
| NOV   | <b>SOW / STRATIFY</b><br>Direct sow outdoors OR begin refrigerator stratification for spring.                                                   |  | <b>LET THEM REST</b><br>Allow the perennial to go dormant naturally.                       |  |
| DEC   | <b>WINTER</b><br>Seeds sown outdoors experience natural cold/moist conditions.                                                                  |  | <b>DORMANT</b><br>Leave the roots alone and prepare for the spring flush.                  |  |

### THE PROCESS At a Glance



Seed



Seedling



First-Year Plant  
(small but building roots)



Caterpillars  
(don't panic!)



Established Plant  
Year 2 and beyond

### KEY REMINDERS

- Don't judge by year one.
- Some plants get eaten to the nub—and come back!
- The roots are the treasure.



### HELPFUL TIPS



Full sun  
At least 6–8 hours of sun.



Water deeply  
During establishment (first summer).



Let it go  
Once established, less water is better.



No sprays  
Pesticides harm monarchs.

### BEYOND YEAR 2...

Milkweed spreads by seed and by underground roots. Let it naturalize and become the weed we all love!

