

Winter Sowing

What is Winter Sowing?



Winter Sowing is a term for a specific method of starting seeds outdoors in an enclosed container. Gardeners plant seeds in recycled containers such as milk jugs then set the jugs outside for the winter. It's not a "sow it and forget it" method, but it's pretty close.

Winter sowing was popularized about 20 years ago by Long Island gardener Trudi Davidoff. She didn't have room for all the paraphernalia to start the plants she wanted indoors. Through her research she learned that many varieties of seeds needed a stratification or cold period in order to germinate. She decided to sow seeds in containers, set them outside and let nature take over.

Trudi discovered that using containers as little greenhouses with potting soil she could mimic the natural process that seeds go through and protect them at the same time. And without any (or very little) supplemental watering, fertilizing, or lighting the seeds sprout. The seeds are chilled over the winter, then germinate at just the right time when spring temperatures wake them up.

USDA Definition

Winter Sowing is a propagation method used throughout the winter where temperate climate seeds are sown into protective vented containers and placed outdoors to foster a naturally timed, high percentage germination of climate tolerant seedlings

Why Winter Sow?

- You don't need a lot of seed starting equipment, ie: Grow lights, germination mats, seed trays, fans.
- No designated room in your house
- No need to keep your eye on the process everyday
- No damping off
- No hardening off
- It just takes less time

What Can be Winter Sown?

"If you can grow it, you can winter sow it"

Why not just sow the seeds in the garden then?

The winter sowing method has a very high percentage of germination, because the container acts as a protective vessel. Thus, protecting the seeds from adverse weather and critters.

When To Winter Sow

Generally winter sowing is started after the Winter Solstice, December 21.

- Too early and your seeds may begin to germinate while temperatures are too cold to support growth.
- By planting after winter has set in you can be confident that your seeds won't germinate until spring.

Suggested Starting Dates

- Perennials can be started from winter solstice until end of February.
- Hardy annual start in February
- Cool weather annuals March
- Warm weather annuals end of March into April

What Materials are needed?

- Translucent or clear containers that can hold 4 inches of soil and have enough height to allow early plant growth.
 - One gallon water and milk jugs work well, but use your imagination.
- Scissors
- A method of making holes
 - awl
 - soldering iron
- Duct tape
- Plant tags
- Permanent marker, paint pen or garden marker, #2 pencil
- All-purpose potting soil (**do not use garden soil, seed starting mix or potting soil with moisture crystals**).
- Seeds

Winter Sowing Step by Step

- Throw away the cap to container
- Thoroughly rinse container
- Label container
- Make a plant tag to put inside the container
- Make 10-12 drainage holes in bottom of container

- With scissors, cut around the container about 4 inches up from bottom (just under the handle if using a gallon milk jug) leaving about an inch under the handle to act as a hinge.
- Fill the bottom half of the container with pre-moistened potting soil.
- Use fingers to gently pack down soil, then add more soil to a level of 1/2 inch from the top
- Sow seeds (slightly cover seeds with soil if necessary)
- Water gently but thoroughly
- Place plant label in container
- Tape container closed, but leave top hole open

What to do after sowing seeds

- Place containers outside in full to partial sun away from foot and pet traffic and away from a roof drip line,
- Check periodically
 - if frozen leave alone
 - if sunny and above freezing check to see if there is condensation inside container
 - if there is no condensation, water
 - if containers are covered in snow, fine.
- When Spring weather arrives start checking daily. if you see green start opening containers on warm days the closing at night.
- During a very cold spell close containers and cover with blanket for protection.
- When weather is consistently above freezing remove top of containers.
- If you don't see green be patient, don't panic, not all seeds are on the same time line.

Time to Transplant

- Transplant after seedlings have two sets of true leaves.

3 Methods of Transplanting

HOS (Hunk of Seedlings)

- Turn over container a gently remove soil and seedlings
- Pull hunks of seedling apart and transplant to garden or containers.

Brownie Method

- Gently remove from container and use knife to cut sections of seedlings to transplant.
- Separate to individual plants and plant.

Helpful Websites

<https://www.facebook.com/groups/wintersown>

Excellent group for winter sowing help!

<https://empressofdirt.net/winter-sowing/>

<https://getbusygardening.com/winter-sowing-seeds/>

Common seeds that require cold stratification (Plant in January to early February)

- *Asclepias* (Milkweeds)
- *Lupinus* (Lupine)
- *Hypericum perforatum* (St Johns Wort)
- *Ratibida* (Coneflower)
- *Scabiosa* (Pincushion Flower)
- *Helianthus* (Sunflowers)
- *Geranium maculatum* (Wild Geranium)
- *Oenothera* species (Primrose)
- *Delphinium*
- *Dodecatheon media* (Shooting Star)
- *Heiopsis* (False Sunflowers)
- *Agastache foeniculum* (Hyssop)
- *Nepeta* (Catnip)
- *Vernonia gigantea* (Ironweed)

When to Start Plants Based on Growing Zone 5b

January

Perennial Flowers
Most Native Plants
Hardy Annual Flowers
Brussels Sprouts

February

Spinach
Kale
Peas
Broccoli
Sage
Thyme
Oregano
Cilantro

March

Lettuce
Carrots
Basil
Parsley
Bok Choy
Beets
Impatiens
Cosmos
Marigolds

April

Tomatoes
Peppers
Egg Plant
Tender Annual Flowers

Common Flower Perennials for Winter Sowing

Here's a list of common garden perennials, the varieties are listed by common names with their zone ranges included. The zone ranges are "suggested", many of these plants will be hardier beyond the zone listing. "b" is a Biennial.

As always, you can do research the seeds you want to try germinate with Winter Sowing; learn more about the plants and see if they will be happy in your own garden. If you are unsure as to any seed's ability to germinate via Winter Sowing where you are then do hold some seeds back to winter sow close to the very end of winter.

Aster 4-9
Artemisia 3-8
Astilbe 4-8
Baby's Breath 4-9
Balloon Flower 4-9
Bee Balm 4-9
Bellflower 3-8
Blanket Flower 3-10
Blue-Eyed Grass 5-8
Blue Fescue 4-9
Blackberry Lily 5-9
Blazing Star 4-9
Blue Beard 7-10
Butterfly Weed 3-9
Broom 6-9
Cactus (varies by species, zones 3-10 included)
Canterbury Bells (b) 3-8
Carnation 4-8
Catmint 5-9
Candytuft 3-8

Cinquefoil 5-8
Chinese Lanterns 5-8
Chrysanthemum 5-10
Clematis 5-9
Coral Bells 3-9
Coreopsis 4-10
Coneflower 3-8
Cranesbill 5-8
Creeping Thyme 4-9
Cupid's Dart 5-10
Daylily 4-10
Delphinium 3-7
English Daisy 4-8
Evening Primrose 5-8
Everlasting Sweet Pea 5-9
False Indigo 3-9
Flax 5-9
Foxglove (b 4-8) (p 3-8)
Fleabane 6-9
Fountain Grass 6-9
Gaura 5-8
German Statice 3-9
Geum 5-7
Globe Thistle 3-8
Goat's Beard 3-7
Heather 5-8
Helenium 4-8
Iceplant 6-10
Hardy Hibiscus 5-10
Helleborus 3-8
Hollyhock 3-9
Hosta 3-9
Iris 4-9
Jack-in-the-Pulpit 5-9
Jupiter's Beard 5-8
Joe-Pye Weed 5-8
Lamb's Ears 4-8
Leadwort 7-10
Lily-of-the-Nile 6-10
Lily-of-the-Valley 3-8
Lily (Oriental varieties) 4-8
Lupine 4-8
Malva 4-8
Meadowsweet 3-8
Money Plant (b) 5-9
Mountain Bluet 3-8
Obediant Plant 4-8
Ox-Eye Daisy 3-8
Pampas Grass 7-10

Pasque Flower 5-7
Penstemon 3-8
Persian Buttercup 7-10
Peruvian Lily 7-10
Phlox 4-8
Pigsqueak 3-8
Pincushion Flower 3-8
Pinks 3-9
Plumbago 5-9
Poppy 4-9
Prairie Coneflower 3-10
Prairie Sunflower 4-10
Primrose 5-8
Pyrethrum 3-7
Red Hot Poker 6-10
Rudbeckia 3-9
Rose Campion 4-8
Russian Sage 3-9
Salvia (varies by species 4-9)
Sea Holly 5-9
Sedum (varies by species 3-9)
Shasta Daisy 5-9
Sea Pink 6-8
Snow-in-the-Summer 3-7
Spurge 4-9
Sundrops 4-8
Toad Lily 4-9
Verbena 6-10
Veronica 3-10
Viola 4-7
Yarrow 3-10

Hardy Annuals Suggested for Winter Sowing

*(tender annuals are
recommended for sowing a
few weeks
before your winter season
ends)*

Abronia umbellata (sand-
verbena)
Adonis aestivalis (pheasant's
eye)
Ageratum houstonianum
(floss flower)
Agrostemma githago (corn
cockle)
Alonsoa acutifolia
(maskflower)
Amaranthus caudatus (love-
lies-bleeding)
Amberboa moschata (sweet
sultan)
Anagallis indica (blue
pimpernel)
Anchusa (bugloss)
Alyssum maritimum (sweet
alyssum)
Antirrhinum majus
(snapdragons)
Argemone mexicana (prickly
poppy)
Asperula azurea (woodruff)
Brachycome iberidifolia
(swan river daisy)
Browallia demissa (bush
violet)
Bupleurum rotundifolium (ox-
eye daisy)
Calandrinia grandiflora (red-
maids)
Calendula (pot marigold)
Callistephus (China aster)
Campanula (annual
Canterbury bells)
Celosia (cockscomb)
Centaurea (cornflower)

Centranthus macrosiphon
(valerian)
Chrysanthemum paludosum
(mini-marguerite)
Clarkia elegans
Collinsia bicolor (Chinese-
houses)
Collomia coccinea (mountain-
trumpet)
Consolida ajacis (Larkspur)
Convolvulus (dwarf/bush
morning glory)
Coreopsis tintoria (calliopsis)
Cosmos bipinnatus (tall
cosmos)
Cosmos sulphureus (sulphur
cosmos)
Crepis rubra (hawks-beard)
Cuphea ignea (fiery cuphea)
Cynoglossum (Chinese
forget-me-not)
Datura species (thorn-apple)
Delphinium (larkspur)
Dianthus chinensis (China
pinks)
Diascia barberi (twinspur)
Dicranostigma franchetianum
(bright-yellow poppy)
Dimorphotheca aurantiaca
(Cape marigold)
Dracocephalum moldavica
(Moldavian dragonhead)
Echium creticum (bugloss)
Emilia javanica (tassel
flower)
Eschscholzia californica
(California poppy)
Fagopyrum esculentum
(buckwheat)
Felicia bergeriana (kingfisher
daisy)
Gaillardia pulchella (blanket
flower)
Gilia (bird's-eye)
Godetia (fairytan, farewell-to-
spring)
Gypsophila (baby's breath)
Helianthus (sunflowers)
Helichrysum (strawflower)

Helipterum (paper daisy)
Hunnemannia fumariifolia
(Mexican tulip poppy)
Iberis (candytuft)
Ionopsidium acaule (false
diamond-flower)
Lathyrus odoratus (sweet
peas)
Lavatera (annual mallow)
Leonurus (lion's paws)
Limnanthes douglasii
(poached-egg plant)
Limonium sinuatum (statice)
Linaria bipartita (toadflax)
Linum (flax)
Lobularia (alyssum)
Lupinus (lupine)
Lychnis (catchfly)
Malcomia maritima (Virginian
stock)
Malope trifida (malope)
Malva (mallow)
Matthiola bicornis (night-
scented stock)
Myosotis dissitiflora (forget-
me-not)
Nemesia strumosa (Cape
jewels)
Nemophila (baby blue-eyes)
Nicandra (shoo-fly)
Nicotiana (flowering tobacco)
Nigella (love-in-the-mist)
Osteospermum (Star of the
Veldt)
Papaver (poppy)
Petunia hybrida (petunias)
Phacelia (scorpion weed)
Phlox drummondii (drummon
phlox)
Rehmannia angulata
(Chinese foxgloves)
Reseda odorata
(mignonette)
Rudbeckia bicolor (gloriosa
daisy)
Salpiglossis sinuata (painted
tongue)
Salvia splendens (scarlet
sage)

Sanvitalia procumbens
(creeping zinnia)
Saponaria vaccaria
(soapwort)
Scabiosa (pincushion flower)
Schizanthus pinnatus
(butterfly flower)
Senecio elegans (ragwort)
Silene armeria (none-so-pretty)
Specularia speculum (Venus' looking glass)
Thunbergia alata (clockvine)
Tithonia rotundifolia (Mexican sunflower)
Torenia fournieri (wishbone flower)
Trachymene caerulea
(laceflower)
Tropaeolum (nasturtiums)
Ursinia anethoides (dill-leaf ursinia)
Vaccaria (cow soapwort)
Venidium fastuosum (Cape daisy)
Viola tricolor (pansy)
Viscaria (rose-of-heaven)
Xeranthemum (everlasting flower)

WinterSown Vegetables and Herbs

Winter Sowing is fabulous for starting veggies. If you've had problems with direct sowing veggie seeds such as the seeds get eaten by birds or critters, or they either desiccate or rot in the soil, or bugs eat them, or there's insufficient germination (for whatever reason) try Winter Sowing your vegetable seeds.

Some good Veggie choices are:

Allium family (onions, shallots, garlic, chives)
Artichokes (zone seven and warmer)
Beans (need very well-draining containers)
Beets
Brassica family (cabbage, broccoli, kale, collards, etc)
Carrots
Celery
Celeriac
Chards
Corn (select an "early" type as it can germinate at lower temps)
Cucurbit family (cukes, squash, pumpkins, melons, gourds)
Leafy Greens
Lettuces
Nightshade family (eggplant, tomatoes, peppers, potatoes - from real seeds.....not "seed potatoes" ;-)
Oriental veggies (any)
Parsnip
Peas
Radishes
Spinach

Kitchen Herbs

Anise
Basil (tender annual best sown towards end of winter)
Borage
Chamomile
Chervil
Chives
Cilantro/Coriander
Dill
Fennel, Wild
Lavender
Lemon Balm
Lovage
Mint
Oregano
Rosemary
Rue
Sage
Summer Savory
Sweet Marjoram
Tarragon
Thyme