



# A Step by Step Guide to Winter Sowing

## Materials:

Collected plastic containers  
Potting soil  
Duct Tape  
Drill or knife  
Seeds  
Marking Pen  
Labels

## What is Winter Sowing?

Winter Sowing is an easy germination method that starts many seedlings for just pennies. During winter seeds are sown into mini-greenhouses that you make yourself from recyclables (milk jugs, plastic pop bottles, etc.) After sowing, the mini-greenhouse is placed outside to wait for the end of winter. Seeds can be started January-April and will be happy with snow coverage or rainstorms. The seeds will begin to germinate in their own time as weather warms.

This method is effective because it supplies everything that a plant needs in a natural environment. In order for seeds to germinate they need 4 things: oxygen, water, light and certain temperatures. Wintersowing provides these by using loamy soil which provides a lot of space for oxygen, condensation, the sun's natural light and the warming of the mini-greenhouse as spring progresses.

Using recyclables as greenhouses outside has many benefits. It saves the space one would use for setting up grow lights. It does not use the electricity lights would use. Heating mats are not necessary and time is saved because once the containers are outside they can be left alone until ready to be planted in the ground. This also conserves the resources of having to put seedlings into gradually larger containers.

Wintersowing is most successful with seeds from perennials rated for our Minnesota climate and for hardy annuals which withstand a period of cold. Less hardy annuals and vegetables are also candidates for wintersowing, they just need to be put out in early and mid-April.

Good luck with your wintersowing.  
EdithAnne



## Step by Step

1. Clean chosen containers in soapy water. You can use milk jugs, soda bottles, deep dish aluminum lasagna pans or deli/cookie/takeout containers with clear lids. Your choice of container is only as limited as your imagination, however it is important for the container to be deep enough to hold at least three inches of dirt. If there is not enough potting mix, the soil may dry out and the seedlings may become rootbound. You will also need to allow enough head room above the soil for the seedlings to grow.



2. Create drainage holes in bottom of containers. You can use an Xacto knife, scissors, cordless drill, or any other tool of your choice. Just be careful. It is important for the containers to have plenty of drainage so the seeds don't rot.

3. Make holes in lid of container to allow rain and moisture to enter. (As temperatures get warmer, you can add more holes in the lids to allow the plants to gradually harden off.) If you are using milk jugs or soda bottles, simply leave the lids off to allow for moisture and air to enter this way.





4. Cut the container in the middle a little over 3/4 of the way around, leaving a "hinge" for opening the entire top portion.



5. Scoop potting mix into containers. It is important to use potting mix and not garden soil. While the potting mix does not have to be the most expensive brand, I've found the "dirt cheap" dollar bags of dirt turn into a rock once wet and do not produce good results. You'll want something fairly light that drains well. Don't skimp on the potting mix, as the roots of your winter sown plants grow deep surprisingly quickly.



6. Wet down the potting mix in the containers thoroughly with water, and let drain. This part can be pretty messy, but nothing a little Comet can't fix. I use the kitchen sink, but you can do this outside if it's a warm enough day or not too windy.

7. Sow seeds on top of soil, and cover with potting mix according to packet directions. Typically, larger seeds should be planted more deeply and smaller seeds on the surface or with just a light sprinkling of soil on top. How many seeds you wish to plant is up to you. If you want your plants spaced out, sow more sparingly. If you want many seedlings, sow more heavily.



8. Label your container. You can use plant labels or popsicle sticks to stick in the dirt inside the container. Pencil works fairly well, as do Sharpies, although these both fade eventually. It doesn't hurt to label your container using a couple methods as a precautionary method. Some winter sowers write with a Sharpie on the milk jug, some write the plant name on tape on the bottom of the container, and other swear paint pens never fade.

9. Tape the containers closed. Some people use a clear packing tape, but I find that 3M clear duct tape works really well. If you find it hard to wrap all the way around the container, pull off short strips (6" or so) and work your way around.



10. Place your winter sown containers outside. Just make sure the containers are in a spot where they will receive adequate moisture. They do best in a Southern exposure where the sun is strongest and the containers act as mini-greenhouses.

There aren't strict guidelines when to winter sow. I usually start my winter sowing in January, once the bustle of Christmas is over. You can continue to "winter sow" as long

as nights are still chilly, even in early spring. It's best to start perennials that need cold stratification first, and then move on to hardy annuals.

Not a lot of care is required for your containers once they're outside. You will want to check on them periodically and make sure there is condensation inside the container. If there is none, you will need to add more holes to the lid of the container so more water can make it way into the container. It is also possible to tape some of the drainage holes to prevent moisture from escaping.

Once weather begins to warm, you will need to watch your containers more closely. In order to harden off plants, you can add more holes to the clear lids of your containers. You may need to remove the tape from your milk jugs and soda bottles and open them or prop them slightly open with clothes pins. The temperature is a good amount higher inside winter sown containers, and there is a danger of the little sprouts cooking in their containers once the temps warm. You will also need to water containers when they become dry.



This is a good bit of nervous anticipation awaiting the first sprout. Doubt creeps in, and you begin to wonder if putting jugs full of dirt out in the snow was the best idea you've had. But then they appear: tiny green sprouts! Bachelor buttons, lettuce, spinach, and poppies are usually among the

first to sprout. I think I'll always winter sow bachelor buttons. Their appearance lets me know the green tidal wave is beginning.



For more info, visit these sites. There is a treasure trove of information on Winter Sowing:

[http://www.seedgirl.com/go/blog/full/step\\_by\\_step\\_guide\\_to\\_winter\\_sowing/](http://www.seedgirl.com/go/blog/full/step_by_step_guide_to_winter_sowing/)

<http://www.wintersown.org>



## Wintersown Plants Successful in Minneapolis, Minnesota

Plant	Type	H	W	Sun	Scientific
Alyssum Carpet of Snow	Annual	4"		Full/Pt	<i>Aliso Alfombra de Nieve</i>
Bacehlor's Buttons Blue Boy	Annual	30"	12"	Full	<i>Clavel de Caballeros Nino Azul</i>
Bunny Tail Grass	Annual	12"	12"	Full	<i>Lagurus ovatus</i>
Chrysanthemum Polar Star	Annual	30"	6"	Full	<i>Crisantemo Estrella Polar</i>
Cleome Fountain Blend	Annual	4-5'	12"	Full	<i>Cleome hasslerana</i>
Cosmos Sensation Mix	Annual	4'	12"	Full	<i>Cosmos Mezcia Sensation</i>
Gomphrena Qis Mix	Annual	18"	6"	Full	<i>Amaranto Mezcia Qis</i>
Lavantera Silver Cup	Annual	12"	6"	Full	<i>Lavantera trimestris</i>
Nemophila Baby Blue Eyes	Annual	6"	6"	Full/Pt	<i>Nemophila Ojos Azules</i>
Painted Daisy Giant Mixed Colors	Annual	24"	8"	Full	<i>Margarita Mayor Gigante</i>
Passionflower Vine Amore	Annual	15'	3'	Full	<i>Passiflora caerulea</i>
Viola Helen Mount	Annual	8"	6"	Full/Pt	<i>Violeta de los Pirineos Monte Helena</i>
Zinnia Purple Prince	Annual	36"	6"	Full	<i>Zinia Principe Purpura</i>
Zinnia Candy Cane Mix	Annual	18"	6"	Full	<i>Zinia Mezcla Batton de Caramelo</i>
Zinnia State Fair Mix	Annual	36"	6"	Full	<i>Zinia Mezcla Belleza del Pais</i>
Canterbury Bells Cup/Saucer Mix	Biennial	3'	18"	Full/Pt	<i>Campanula medium</i>
Butterfly Flower	Perennials	2-3'		Full	<i>Asclepias tuberosa</i>
Columbine McKana's Giants Mix	Perennials	30"	12"	Full/Pt	<i>Aguilena Mezcia Gigantes de McKana</i>
Columbine Rose Barlow	Perennials	30"	24"	Full/Pt	<i>Aguilena Rose Barlow</i>
Daisy Silver Princess	Perennials	12"	6"	Full	<i>Chrysanthemum maximum</i>
Delphinium Pacific Giant Mix	Perennials	5'	12"	Full	<i>Delfinio Mezcia Gigante del Pacifico</i>
Delphinium Pacific Giant Mix	Perennials	5'	12"	Full	<i>Delphinium hybridum</i>
Dianthus Arctic Fire	Perennials	8"	8"	Full/Pt.	<i>Diantus Fuego del Artico</i>
Echinacea Purple Coneflower	Perennials	3-4'	2'	Full	<i>Echinacea purpurea</i>
Flax Blue Lewis	Perennials	16"	10"	Full/Pt	<i>Linum lewisii</i>
Foxglove Gloxiniflora Blend	Perennials	5-7'	3'	Full/Pt	<i>Digitalis purpurea</i>
Gaillardia Goblin	Perennials	18"	12"	Full	<i>Gaillardia grandiflora</i>
Grass Little Bluestem	Perennials	24"	18"	Full	<i>Schizachyrium scoparium</i>
Grass Northern Sea Oats	Perennials	24"	18"	Full/Pt	<i>Chasmanthium latifolium</i>
Rudbeckia Black-Eyed Susan	Perennials	24"	18"	Full	<i>Rudbeckia hirta</i>
Snapdragon Magic Carpet Blend	Perennials	24"	18"	Full	<i>Antirrhinum majus</i>