



**SEEDTIME**



**Winter  
Gardening  
Cheat Sheet**

Hi there!

Ever dreamed of being able to harvest crisp, delicious veggies throughout the fall, and even through the winter?

It's possible!

And we are here to show you how.

Fall and winter gardening can actually be easier than spring and summer gardening.

Wait... did you really hear right? Yes, you did!!

When you grow in the fall and winter, you have less weeds to think about, less disease, and your soil doesn't dry out so quickly! (Although yes, you do still need to water occasionally in the winter).

It's almost like having plants sitting in the refrigerator waiting to be eaten. Yes, it really is that fantastic.

If you live in the Plant Hardiness Zone 5 or higher, you will be able to grow a bountiful harvest of fresh produce right through the winter with minimal investment in protective infrastructure. (Yay!) If you are growing in Zone 4 or less, don't lose hope! You can use these same techniques to extend your fall and spring seasons, and you may be able to take some crops through the winter.

**[Don't know what zone you live in? You can easily find out by entering your zip code [here](#).]**

Once you know what zone you live in, we will walk you through the three critical factors for a winter harvest. These are:

1. **Choosing the right crops.** As we mentioned above, we are sharing how you can get a winter harvest with minimal work, without breaking your pocket book, and with little infrastructure. We are showing you how you can get a winter harvest using simple protective materials, but without supplying heat! What this means for your crops is that they must be cold hardy. We are not talking about growing green beans or tomatoes!
2. **Getting the timing right.** Timing is always important in growing, but for a winter harvest, *timing is especially critical which is why we call it the #1 critical factor for having a winter harvest.* Whereas for spring and summer crops you often have a planting window of several weeks to a month or more, for a winter harvest you often have a window of a week or less, especially if you are doing succession plantings. We will share not only what you need to think about, but why.
3. **How to protect your crops.** When thinking about growing for a winter harvest most of us immediately think about how we can keep our crops warm. That is important, but equally important, but not often considered, is how to protect them from air movement. These two things are different, but related. We will look at a number of simple and inexpensive ways you can protect your crops from wind and trap heat without supplying heat.

We have followed these principles for many years to have fresh produce all winter long in middle Tennessee (plant hardiness zone 7a). We love our winter harvest! And following these same techniques, we have gardening members who have had winter harvests in snow laden places like Michigan and Washington. You can do it too!

So let's dive right in!



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## SECTION ONE

### Choosing the Right Crops

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This may seem pretty basic, but for those who haven't had much experience on the land, it may not be. And, it is critically important to successful winter gardening.

#### **How do I know which are the right plants to grow in the winter?**

There are some crops that thrive in hot weather and can't survive any frost pressure. We generally call these warm season crops. These are crops like tomatoes, peppers, eggplant, squash (both summer and winter varieties), cucumbers and melons, green beans, corn, sweet potatoes, okra and basil. You will notice that many of the warm season crops are fruiting crops; (using "fruit" in a strict botanical sense). These crops are traditionally grown in the summer.

In contrast, there are cool season crops that prefer cool weather. They are crops like lettuce, kale, cabbage, broccoli, peas, spinach, beets, carrots, turnips, and radishes. You will notice that most of these vegetables are grown for *leaves* or *roots* (meaning, that is the part of the plant you want to eat). They can all take a mild to moderate frost without significant damage. These vegetables are traditionally grown in the spring and/or fall, but with a little simple protection, you can extend your harvest of these vegetables right through the winter. These are the crops we will be focusing on in this Cheat Sheet.

A simple little rhyme that we call our “veggie formula” to remember the difference between winter and summer crops is:

*Winter leaves and roots vs. summer seeds and fruits.*

In addition to these two broad categories, there are certain “cross-over” varieties that can take it both hot and cold. These are generally *cool season crops* where certain varieties have been *bred to be heat tolerant*. They include collard greens, heat tolerant varieties of lettuce and carrots, and a number of different Asian greens such as bok choy, komatsuna and tatsoi.

The farther north you go (or the higher in altitude), the more likely it is that you can grow cool season crops through the summer. But if you can grow cool weather crops in the summer where you live, you’ll probably also have difficulty growing peppers, sweet potatoes and other heat loving crops.

By now you may be getting the picture - each crop, and even individual varieties of a crop, has its own level of heat tolerance and cold hardiness. Now it’s time for you to experiment! When growing in the winter, you’ll want to target the most cold hardy crops, but you will need to learn from experience the fine lines and idiosyncrasies of each variety in your setting.

Gardening is as much an art as a science!

Below is a chart in which we have categorized the different cool season crops as being mildly cold tolerant, moderately cold tolerant or very cold tolerant. These categorizations are based primarily on our own experience in middle Tennessee as well as

from what we hear from other growers around the country. Others may designate them differently.

Low Freeze Tolerance	Medium Freeze Tolerance	High Freeze Tolerance
<p>Lettuce                      Chicory (radicchio, endive, escarole)                      Broccoli                      Cauliflower                      Cilantro                      Parsley                      Radishes                      Celery                      Bok Choi</p>	<p>Chinese Cabbage                      Sorrel                      Rutabaga                      Kohlrabi                      Collards                      Kale                      Maché                      Spinach                      Beets                      Carrots                      Parsnips                      Dandelion Greens                      Baby Greens</p>	<p>Turnips (hakurei - low)                      Brussels Sprouts                      Cabbage                      Yukina Savoy</p>



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### SECTION TWO

#### Getting the Timing Right

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**So now we know which plants to grow during the cool season. Now, how do we know *when* to plant them?**

Great question! In planing and growing for a winter harvest, timing is what we call the #1 critical factor, much more than timing for spring or summer growing (though that is also important!). Why is timing for winter growing so important? Let's see!

#### **Day Length**

It all has to do with the connections between latitude (your distance from earth's equator), day-length and plant growth. On the equator, day-length is very consistent throughout the year, but the further you get from the equator, north or south, the longer days are in summer and the shorter days are in winter, until you reach the realm of the never setting summer sun and the never rising winter sun of the poles. So, depending on your latitude, your day length will vary...

...aaaand your day-length has an effect on plant growth! Very simply, plants use light from the sun, via photosynthesis, to produce the energy needed for growth and fruiting.

More sun = more growth, less sun = less growth.

The critical point here for a winter harvest is that once day length reaches *10 hours or less*, most plants will have **minimal to no growth**. To have a winter harvest then, the goal is to get your plants fully (or almost fully) grown by the time your day-length drops to 10 hours or less. Where we live in middle Tennessee, our day length drops to less than 10 hours on November 27 and goes back above 10 hours on January 14. This period of time when day-length is less than 10 hours is called the Persephone period. If you happen to live between the 32nd parallel (north or south) and the equator, you will never enter into the Persephone period.

How can you know for your location, when you enter the persephone period? You can find this out easily by clicking [here](#). In the form enter your zip code or your city and state then press enter or click search. The next page should show a bar with a visual representation of day length for your area throughout the whole year. You can hover over it with your mouse to find the day length for any day of the year.

(If you don't live in the US, you can use the option to open a map when searching. Just click on the search bar and choose "Open Map" and then find and click on your location in the world.)

Eliot Coleman, who farms in Zone 5 and is the North American pioneer of winter growing, believes that the techniques we are sharing here could be used as far north as Anchorage, Alaska on the 61st parallel.

## **Days to Maturity**

Once you have these basics down, the next step is planning. For those of us in northern (or southern) latitudes this will mean starting to seed some crops in the middle of summer when winter is very far from our minds.

Let's look at a couple of examples, that of lettuce and Brussels sprouts. We'll use our persephone beginning date where we live, (November 27) and you can follow the same steps to establish what you need to do for your persephone beginning date.

**Note!!** Be careful when checking Days to Maturity (DTM). For many Brassicas (Brussels Sprouts, Broccoli, Cabbage, Cauliflower) as well as some other crops, DTMs are counted from *transplanting date*, not seeding date, although Kale and Collards, which are also Brassicas, count their DTM from *seeding* (confusing, we know!). Most good seed catalogues will say somewhere whether the DTM for your seed is counted from seeding or transplanting, so you will need to be diligent to check each one until you are very familiar with your veggies so you won't have any surprises!

So, back to what we were saying...

Brussel Sprouts and Cabbage are usually the first winter crops that we seed because many of them have a Days to Maturity (DTM), *from transplanting*, of around 100 days.

So let's see how we would calculate when to plant Brussels Sprouts. Dagan is a good dependable Brussel sprouts variety listed in Johnny's Seeds as having 100 days to maturity. Since we enter the persephone period on November 27, we will start

counting our 100 days back from that date. That takes us to August 19. Then, because during this season each day is getting shorter and plant growth is slowing down correspondingly, we add on an extra 14 days which we will call our “fall seasonal adjustment”. This takes us to August 5. This should be your *transplanting* date. But if you are going to grow Dagan from seed, we will need to add on about 3 more weeks to grow the transplants, which will take us to July 15. This would be your *seeding* date.

Our next example will be lettuce. Lettuce is one of our favorite cool season crops with all the different shapes, colors and textures in the different types and varieties! Of all the different types of lettuce, our favorites are the butterheads. [Pirat](#) is a beautiful green butterhead with tinges of red on the leaf edges. It is listed as having 55 days to maturity (DTM). DTMs for Lettuce are from *seeding*. So we go to November 27, the beginning of our persephone period, and count back 55 days. This takes us to October 3. We then add on our 14 day “fall seasonal adjustment”, as mentioned above for the Brussels sprouts. This takes us to September 19. This would be the seeding date for your winter crop of Pirat.

It sounds complicated, but it really isn't once you understand it and jump in, doing it yourself. If you follow these steps, you should have mature Brussels sprouts and Pirat lettuce ready to harvest as you enter the persephone period. If you give them minimal protection (which we will discuss later), you will be able to eat from them during December, January and beyond. It's like

having live plants in an outdoor refrigerator, making the option of fresh salad for New Years a reality! Yum!

## **Succession Planting**

**So now you may be thinking “ok, I get how to have a harvest ready when I enter the persephone period. But what if I want harvests in the months leading up to or following the persephone period?”**

This is one of the biggest challenges in growing for a winter harvest. As we have said above, there is a direct relationship between day-length and plant growth. Longer days spur more plant growth, shorter days retard plant growth. The challenge here is that with the days rapidly shortening and then lengthening again coming out of the persephone period, we are, in effect, planning for a moving target.

Below, I have set out for you a succession planting schedule for a crop like lettuce with a DTM of 40 days and a harvest every week. As you will see, it gets pretty intense in September and early October. It is probably more intense than the home gardener wants or needs. You could plan for a harvest every two weeks and halve the number of succession plantings. Also, keep in mind that this schedule is for a DTM of 40 days. Normally, you will be seeding several different varieties with differing DTMs. If you seed for a harvest every two weeks with a variety of differing DTMs, you will have things come to maturity in a staggered fashion across your succession plantings, giving you a constant supply of fresh produce.

This schedule is derived from Eliot Coleman’s chart on page 49 of his “[Winter Harvest Handbook](#)”. It is based on his experience in a hoop house with a single layer of plastic on the coast of Maine at a latitude of about 44. We have found that even though we are at a latitude of about 36, the general pattern still holds true. You can use this chart as a starting point for your winter growing, but over time you will need to customize it for your unique situation.

As you can see, the challenge of pre-persephone and persephone period harvests is the initial intensity of seeding. The challenge of post-persephone harvests is the long DTMs in a harsh environment. The most difficult months to have a harvest for are March and April because anything you harvest then must have passed through the persephone period and it is too early for post-persephone seedings to have matured. Turnips, rutabagas, carrots, cabbage, collards, and tatsoi are all hardy crops that can hold into March and April. Another solution for tender fresh produce in March and April is to seed baby greens in late December.

Seeding Dates for a Weekly Harvest	DTM	Weekly Harvest Date
8/8	40	9/21
8/16	41	9/29
8/22	43	10/8
8/29	47	10/19
9/2	49	10/25
9/5	52	10/31
9/9	55	11/5
9/12	62	11/15
9/14	67	11/22
9/17	71	11/29

9/19	75	12/5
9/21	80	12/12
9/24	85	12/20
9/26	88	12/25
9/30	93	1/3
10/3	97	1/10
10/7	100	1/17
10/10	106	1/26
10/14	108	2/1
10/17	110	2/6
10/21	113	2/13
10/24	115	2/18
10/31	117	2/27
11/7	118	3/7
11/14	119	3/15
11/21	120	3/23
11/28	119	3/29
12/5	118	4/4
12/12	116	4/9
12/19	no seeding	
12/26	111	4/18
1/2	no seeding	
1/9	103	4/24

This can be daunting for some, especially if they have never done it before. If you want a lot easier way to keep track of your plantings, get your [free Seedtime gardening calendar here](#). It gives you a very simple way to see when to do your bed preparation, when to seed, and when to transplant, based on your local area. And also makes it a lot easier to keep track/record your seeding and harvest times over the winter!!

# 3

## SECTION THREE

### How to Protect Your Crops

So, you've decided what to plant and when to plant it. But even cold hardy plants have their limits. Now, what do you do to keep them alive when winter temperatures arrive?

When we think about growing for a winter harvest, the first thing that usually comes to mind is, "How are we going to keep the plants warm?". In this section, we are going to cover how we can provide physical protection to our crops without breaking your pocket-book. These are simple solutions that don't include applying heat. Greenhouses (or protection that provides artificial heat) are wonderful if you have them, but we are not including them here since most home gardeners do not have a greenhouse.

The techniques listed below will trap some heat, but their most important function is the prevention of wind chill. While good air movement is essential for garden health when it is warm, when



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temperatures drop to freezing or below, our goal is to minimize and/or stop all air movement around our plants.

**To illustrate**, you can take a bucket or large kitchen mixing bowl, fill it halfway with cold water and then dump a glass or two of ice cubes into it. Let the water settle so that it is still, without movement. Put your hand into the water and hold it still. The water will feel excruciatingly cold initially, but will then moderate. But if you move your hand, even just a little, you will immediately feel the cold again. Hold your hand still, and it will moderate again. What happens is that in the still water, your hand develops an envelope of warmer water around it, moderating against the cold. But when you move your hand, that envelope is washed away and you feel the true temperature again.

The same thing happens to our plants when we protect them from air movement in the cold. Whatever the actual mechanism is, we know from personal experience as well as that of many other winter growers, that plants protected from air movement can survive much lower temperatures than they are supposed to be able to survive.

Let's take a look at some ways you can protect your plants. We'll start at the easiest (but also least protective), and build up from there. In this section we will talk about using 1) floating row covers, 2) low tunnels, 3) caterpillar tunnels, and 4) hoop houses.

## Floating Row Covers

## Materials Cost: 4¢ - 8¢ per square foot

Floating row covers are light weight, white, spun-bonded fabric sheets that are breathable (porous) to both air and moisture. (Think of something similar to the sheets that you throw into the drier with your clothes). There are several different kinds. Some of the more prominent brands are:

- [Typar Xavan](#). More expensive, but also more durable than other row covers
- [Agribon](#) row covers.
- [Gro-Guard covers](#), which are the ones we use on our farm and recommend. (Affiliate link to my cousin's store!)

Both Agribon (AG) and Gro-Guard (GG) covers are made of similar material and are quite comparable to each other.

## How do I know which ones to get?

Great question! Floating Row covers come in different weights for different purposes. Choosing the right weight is a bit of a balancing act. The heavier the weight, the more frost protection it provides; but the trade off is that it also it allows less light penetration. The weight of row covers is measured in ounces per square yard. Sellers will also usually list the percent light transmission through the cover. We, and many others, have settled on [Gro-Guard 34](#) as the best all round cover for the balance of light transmission and frost protection. It is 1 oz/sq yd and allows 70% light transmission. AG 30 is the Agribon

counterpart. We can usually get at least 3 years of service from a single row cover.

Dragging row covers, stepping on them, or allowing your dog to run through the garden, can all shorten the lifespan of your row covers by ripping them unnecessarily. The more gently you treat them, the longer they last!

### **NOTE: What about row covers for an insect barrier?**

When your purpose is not frost protection but rather insect protection, very light row covers (GG 17 and AG 15) are great choices to use as an insect barrier for late spring and summer crops. But when using this as an insect barrier, keep in mind that it must be removed when plants begin to blossom for fruiting crops.

### **How do you use row covers?**

We use floating row covers in two different ways.

First (and simplest), you can simply lay the cover directly on the crop to be protected. This works particularly well for crops like carrots where you are either not intending to use or eat the leaves, or for very light freezes. But in cold weather, with hard freezes, you will get freeze burns where leaves touched the cover. The solution for that is to prop the cover up above the plants.

One way to do that is to use wire wickets made of number 9 wire - in lengths of 76 inches each (2 legs 23 inches each with a flat top 30 inches long). We have used wires in the past, but found that they tend to loosen in the ground and come out with

repeated pulling and replacing of the row cover. The advantage of wire wickets over other props is that they keep the covers relatively close to the crop and to the ground, minimizing interior space for potential air movement.

Row covers are a must have for any season extension that you want to do. We recommend always having them in your gardener's toolkit!

## Low Tunnels

**Materials cost: \$.20 - \$1.00 per square foot covered.**

Otherwise known as Quick Hoops or Mini Hoops, Low Tunnels are the in-between step between simple row covers and a more serious protection.

**How do I make a low tunnel?** Use 10 foot lengths of 1/2 inch electrical conduit - either the grey plastic PVC or the galvanized metal EMT. (Of course, if you use the EMT conduit, you will need to get a bender to bend it into a hoop, which you can purchase from Johnny's.) PVC conduit will last for 7 - 10 years. The metal will last forever as long as it doesn't get misshapen.

We like to grow in 30 inch wide beds. These conduit hoops will span two 30 inch beds with a 12 inch walkway between them (72 inches). We put the two ends of the hoop (if using the metal ones) about 10-12 inches into the ground on each side, giving us about 8 ft of hoop to cover. We use a 10 ft wide row cover, so

that we have about 1 ft of extra fabric on the ground on each side of the hoop.

Then, anchor the cover with a sandbag or other weight on the row cover next to each hoop. We place our hoops 6 ft apart, but we get minimal snow. If you live where you will get more snow, place them 4-5 ft apart depending on how much snow you receive. You could also use 3/4 inch conduit for extra stability.

**Note on sand bags:** We generally use about 15 lb of sand per sandbag, but 30 mph winds will blow the covers off. If you regularly have 30 mph winds, consider using 20 lb of sand per sandbag.

We are growing in middle Tennessee, in Plant Hardiness Zone 7a. For several years we grew about half an acre under low tunnels! The first season we used low tunnels, we tried to cover several of our tunnels with plastic on top of the row cover, thinking that we were giving our crops more protection. We never did it again. The plastic was way too much work - it needed to be vented on clear days and then replaced at night, and it was heavy and slippery and needed constant adjusting to keep it centered on the hoops. We went to covering our low tunnels with a single



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floating row cover in mid October before the first frost and then just leaving it in place until sometime in April. Since it is breathable and water permeable, we never need to worry about venting or watering. We only remove the cover for harvest or checking. We have a second row cover for each tunnel that we pull over it when temperatures fall into the teens or below. For some more cold sensitive crops, we have even used a third cover. But we always take the 2nd and 3rd covers off again as soon as the temps go back up or the sun shines. We tried leaving a second cover on one low tunnel for a couple of months and found that it actually retarded growth (not enough light and warmth came through the two covers).

I am aware of someone in Plant Hardiness Zone 6 who is also growing through the winter using only floating row covers over low tunnel hoops. In these zones it is common for us to have daytime highs in the 40s-50s and night time lows in the 20s or less. These fluctuations necessitate frequent venting with a plastic cover. For those who live further north with more consistent temps below freezing, and/or less sunshine, you may want to use a plastic cover over your floating row cover. Eliot Coleman in Maine, Zone 5, does this.

## Caterpillar Tunnels

**Materials cost: \$1.00 - \$1.40 per square foot.**

In a way, caterpillar tunnels look like large low tunnels. They provide the advantage of giving you an inside workspace, but

without the cost of building an actual hoop house or green house for your garden. Being able to work inside the tunnel is really nice on cold, blustery days when you would hesitate to pull back the cover on the low tunnels. They usually use bows that are about 20 feet long and span 14 feet. This allows you to have four 30 inch beds, three 4 foot or two 6 foot beds inside.

You will want to use plastic to cover your caterpillar tunnel - we use 6 mil greenhouse plastic. Non-greenhouse plastic may block some UV light and may deteriorate faster than greenhouse plastic. The plastic is held in place by ropes crisscrossing the structure, which is the primary difference between caterpillar tunnels and hoop houses. Another distinctive difference is that caterpillar tunnels, like low tunnels, are just bows set in the ground with no or minimal cross bracing. Keep in mind though, that just as it is for plastic covered low tunnels, venting is an issue for plastic covered caterpillar and high tunnels.

### **How do I set up a caterpillar tunnel?**

Caterpillar tunnels are set up in a similar way to low tunnels, just on a larger scale. But a video is worth a thousand words, so below you will find a link to a video of setting up a caterpillar tunnel.

[Click here to watch the video of a caterpillar tunnel being set up](#)

### **Where do I get a caterpillar tunnel?**

You can purchase [complete caterpillar tunnel kits](#) from Farmer's Friend with everything needed (affiliate link to our relative - Jonathan Dysinger's store), or you can source your own materials

and make your own bows using chain-link top rail and a pipe bender from Johnny's Seeds.

## **What is the advantage of a caterpillar tunnel over a hoop house?**

Caterpillar tunnels are extremely versatile! Because they are so simple, caterpillar tunnels are usually erected with the plan to move them with crop rotations. But, if you'd like to, they can also be set up as fixed structures. When caterpillar tunnels are moved, they are usually disassembled and then reassembled at the new location. Two people can usually take down and set up again a 100 foot caterpillar tunnel in 4-6 hours. When caterpillar tunnels are set up as fixed structures, they are usually modified with additional purlins, bracing, framed ends, and the plastic is usually attached using wiggle wire or some other means than ropes. If these modifications have taken place, it would really fall more into the category of a high tunnel.

## **High Tunnel**

**Materials Cost: \$2 - \$5 per square foot.**

Otherwise known as a Hoop House or Cold Frame, a high tunnel is usually larger than a caterpillar tunnel and has a more robust structure with multiple purlins, trusses and other bracing. Most high tunnels are covered with a single layer of plastic, but some have a double layer (with an air gap in-between for insulation).

**Isn't that structure a greenhouse?**

Actually it isn't, but it is close. The distinction between a high tunnel and a greenhouse is that greenhouses are designed to control the temperature, and they usually have a heat source that can do that. High tunnels, being much simpler in design, aim to provide protection and moderation, but they don't have anything that will control the temperature.

Though there is a price range with hoop houses, you want to be careful here! Going cheaper (which we totally understand) can cost more in the end. If you are going to make the investment for a hoop house, you need a structure that can withstand typical wind and snow loads for your location. Also, be careful what materials you use, because wood will rot quickly in the hot, humid environment in a hoop house during the summer (ask us how we know!) It is best to stick strictly to metal if at all possible.

### **Is it possible to move a hoop house after it's built?**

Yes, actually, if you keep that in mind when setting it up. Most high tunnels are set up in a fixed location, but some are moveable. In contrast to caterpillar tunnels though, high tunnels are moved intact, often on skids, rails or wheels, on a fixed path, usually between 2-4 sites in a straight line. Hence, if you will want to move it frequently, it's probably better (and cheaper) to go with a caterpillar tunnel.

There are two primary reasons for moving high tunnels or caterpillar tunnels. One is to allow the soil under plastic to be exposed to the seasons and elements, which may be healthier for the soil. The other is to make more efficient use of your infrastructure and real estate.

For example, let's say you have a crop of tomatoes in the high tunnel that you would like to take as far as possible into the fall, and you also want to have a crop of kale or spinach under the tunnel through the winter. If you have a fixed structure, you will have to make a choice: either you take your tomatoes late and then occupy the structure with a spring crop, or you take the tomatoes out in September so that you can transplant in your greens. With a movable structure, you can keep your tomatoes covered and put your greens in outside. When your tomatoes are finally taken out by a freeze, you move the structure over the greens. Then in the spring, you do the opposite.

### **Is it necessary to anchor a hoop house in place, or is it heavy enough to stay put?**

You definitely want to anchor them! Fixed high tunnels are anchored to the ground by attaching the bows to ground posts that are buried at least two feet in the ground. Movable high tunnels are anchored in other ways - often through the use of T-posts driven in the ground next to bows and clamped to them. Anchorage is very important, because a hoop house is comparatively light compared to all that plastic that can catch the wind. One grower's magazine had a picture several years ago of a movable hoop house up on a barn roof!

### **Is a hoop house enough protection, or do we really need external heat (a greenhouse)?**

Hoop houses are great, but sometimes you will need more protection. Simply use row covers or low tunnels inside your high tunnel. The low tunnels inside can be covered with one or two

layers of floating row cover when night time temps fall into the low 20s or less. When using floating row covers inside a high or caterpillar tunnel, it is important to always take the covers off on clear days, only leaving them on when temps inside the tunnel remain below freezing. *To leave them on when temps are warm will encourage disease!!* And nobody wants that when you've worked so long to keep your plants alive during those long DTMs!

## Conclusion

So there you have it. It may seem new and intimidating to you at first, but winter gardening can actually be easier than summer gardening once you get used to it. With reduced weed and disease pressure and decreased water needs, that beautiful fresh-picked lettuce for your New Year's dinner salad is within reach.

The key? Don't allow the newness to overwhelm you. Instead, pick a crop or two that you'll try to grow this fall / winter. If you're brave, add a succession planting or two, but don't do too many. You'll learn, and next year you'll be inspired to try more. Soon you'll have a beautiful garden in your very own "outdoor refrigerator" that is beautiful, fresh, nutrient-dense, and bursts in your mouth with flavor.

And count that Christmas harvest as our gift to you. You're welcome, already.

Blessings!



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