



Planning Your Winter Garden



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I will say first that while researching this presentation it wasn't hard to find information on winter gardening. What was more difficult was to find information related to growing winter gardens on the coast.

Throughout this presentation I will try and make sure to mention coastal differences where appropriate. Here on the coast, we can successfully grow lots of vegetables and some herbs all year round with our mild coastal climate.

Terminology Slides:

Cool-Season Crops:

- Some vegetables and herbs that do best when our summer temperatures begin to decline
- Daylight hours shorten
- Sun is less intense
- Cool-season crops need more protection going into winter – this protection or “season extenders” will be addressed later.
- If these crops don't have protection, there is a good likelihood (depending on when you plant them) that you'll be harvesting in the late fall/early winter or late spring/early summer.
- You want to plant these cool-season crops in late summer and/or early spring. Here is where our late summer is a bit different than say the valley or the more inland areas of our county.

Winter Crops:

- Tolerant of even cooler temperatures than cool-season crops.
- Moderate hardiness to frosts between 25° to 28° - Again, here on the coast we have milder winters with very few extended or consecutive days that drop into these lower temperatures. So almost all these winter crops (and cool-season crops) will do well during the winter.
- Our coastal temperatures, most of the time, are in the low 40's to mid-50's during the winter.

Because of our mild coastal climate, with some exceptions as you go farther away from the water, these Cool-season crops and winter crops are almost interchangeable.

Herbs are mostly cool-season crops and they will need protection or mostly likely won't survive through the winter if they remain outside. These may be a good crop for container gardening and if there is a possibility of bringing them either indoors or closer to the house for greater protection, some of your hardier herbs will withstand winter (rosemary especially) as they usually don't survive a hard freeze.

These cool-season and winter crops love cooler weather. It's not that you cannot grow them in the summer (again here on the coast our summers are much cooler than the valley or inland) however, these plants thrive in those cooler months.

Recap:

- Really interchangeable because of our proximity to the water.
- Cool-season crops grow better in early fall and early spring and some can grow through mild winter winters with protection. Mainly lettuce and hardier herbs.
- Winter crops are better in harsher weather conditions and more associated with winter months.
- Better in late fall and harvest through the winter and most don't need protection to survive.

What is Winter Gardening?

Just as it sounds – gardening during those months when there is:

- Not a lot of sunlight
- Lower temperatures mean slower growth
- Start seeds late summer/early fall
- Need to have the plants grown close to maturity when really cold weather sets in as you want them to grow some during the winter months before you harvest but still want to harvest them during the winter.

What is Overwintering?

It is just that – letting vegetables sit over-winter and then harvest them in the spring.

- These crops can endure harsher winter conditions
- Some or most can grow without protection.
- Planted about the same time as winter crops with some small differences in timing.
- This is where living on the coast is an advantage, we really don't have harsh winters as say maybe the Midwest, Northeast states.

Advantages of Winter Gardening:

- These plants thrive in cooler weather
- Won't bolt (or go to flower) as it's the heat that causes bolting.
 - Learned something very interesting with this regard and is good to keep in mind while growing winter crops: **For every rise in 18° in temperature, the plant's growth rate doubles.**
- Fewer pests, for the most part. However, this may be a bit different in that some pest won't die out during the winter because of our mild winter conditions don't get cold enough to kill them all.

Location, Location, Location

In the 17 years I've been growing a garden, I can honestly say that I've had 3 or 4 different locations for my vegetable garden. This is where keeping a journal is helpful. Gardening is a series of trial and errors sometimes and finding that right location is key for a successful garden. Journaling will help you remember what worked, when and where in your garden.

South-facing –

- Be aware of the path of the sun as it travels over your yard during the winter months. Example: Cold frame is on the south side of my house and facing south. During the summer it has full exposure to the sun because of that path the sun takes during the summer. However, in the winter, when the Earth's axis changes, my neighbor's trees will most likely block some or a lot of the sun to the cold frame because of where it is in my yard. Even though it's south facing it

probably really isn't in a good location. It may do better on the north side of my property, still facing south, but not covered by trees shadowing the cold frame in the winter. So, location is key and need to be aware of the sun's path in your yard and natural barriers that may block the already little sunlight that we get in the winter. As this is my first year having this cold frame, we will definitely be watching to see the amount of sunlight it will be getting this winter and may make the decision to move it after this winter if the crops don't perform well.

Good Drainage:

- Want to make sure there won't be standing water where the crops are planted if there isn't protection.
- Most of these plants don't do well with waterlogged roots.

Easily Accessible:

- Close to the house – if your garden is on the opposite side of your property, you will be less likely to venture out into the cold, wet weather to harvest your crops.
- Have good walkways or paths leading to your beds and around your beds– it is not fun to walk through mud and puddles to get to your crops.
- Here is also a key to location as well. You want it where you will have an easier time when you go to harvest your crops.

Season Extenders:

Cloche –

- French for bell-shaped. Defined as a small translucent cover for protecting or forcing outdoor plants. Or a woman's close-fitting, bell-shaped hat.
- Show the different cloches (I used a small glass cloche from my greenhouse, and I used the small "travel size – demo" cloche from the MG shed.)
- Show how the sides can be lifted during the day to allow air circulation and let mother nature do the watering.
- Doesn't have to be fancy as you can see from the different pictures used. PVC piping and a cover of some kind. Has clips to attach plastic or cover to the frame. Is a sturdy construction, however, here this is also where location is key. If it is exposed to the high winds that we experience on the coast, it may not last as long as if it is in a little more protected area.
- Have as a handout the Cloche postcard with a list of materials needed to build a cloche on the back.

Row Covers

- Lower to ground
- Mostly for cool-season crops that aren't as hardy
- Also good for keeping pests off of young plants
- Covers just enough of the plant to protect for a short period of time
- Will need to watch weather reports and get covered before a frost or freeze
- Key to remember:
 - Keep cover from touching plant
 - Needs to be elevated
 - If you don't keep it off plant, the cover gets wet, then freezes and if touching the plant, that part of the plant will also be affected by the freeze.

Cold Frames

- Functions same as a cloche in that it's covered but better in drawing in heat from the sun by using clear or transparent tops.
- Wind protection
- Keeps heat in during low night temperatures
- Helps with growth rate to a certain extent – keeps plants warmer for those plants which might not survive longer colder temperatures.

Additional Season Extenders

- Don't need to be fancy
- Lots of different materials can be used
- If you have more of a container of herbs and need a quick cover, almost a mini greenhouse, can use a clear dome umbrella to make either a cloche or row cover or cold frame

What Crops to Plant – Overview

- Going to see a lot of the same plants for all these categories of Cold-Season and Winter Crops.
- The main difference will be when you harvest them
- The reason for that is mainly because we live on the coast and have such a mild climate and not so harsh winters
- We don't live in those states that have snow for 4 or 5 months during late fall and all of winter (i.e. Minnesota, Vermont etc.,)
- Your overwintering crops are what are going to be the difference

Cool Season & Winter Crops Slide:

- These pictures are from my garden, however, as I said earlier, I haven't grown a winter garden so these are grown in the summer. But because we have mild conditions in the summer and not overly hot (like the valley with 100+ temperatures) they grow well.
- However, these crops LOVE cool weather and will thrive and grow more abundantly in those cooler fall/winter temperatures. Cannot wait to see how these grow in the cold frame and garden this year.

Leafy Greens & Herbs

- Herbs are going to be your “true” cool season crops. Even here on the coast, I don't see them surviving winter without a lot of effort and protection.
- Possibly with the right protection and care may be able to survive
 - Grow in a container and bring that container into the garage during the coldest part of winter
- Peas are one of those crops that are similar to herbs
 - A true cool-season crops, but if planted in succession and well protected in a cloche, you may be able to harvest throughout the winter.
 - I had a crop that was not protected and just in the garden that went well into October, however, once the rains really started that crop declined quickly. Just too wet and that's why it needs protection.

Tips slide:

- Look for cool weather varieties
- May wilt if started too early because it is still too warm/hot outside
 - On the coast we may be able to get away with planting a bit early but need to be careful as we might have an extended summer temperatures in late September or early October (Indian Summer effect)
- Planted too early and it is hot, plants may grow too fast (every rise of 18 degrees in temperature the plant growth doubles) and the plant will be too mature to last into the winter months when you want to really be harvesting the plant.
- Ideally, want to use late July, August and September to choose what to grow and begin planting at that time.

Overwintering Crops

- These crops are those that can endure hard winter weather and still produce a crop that is generally harvested in the early spring
- Mostly root vegetables, but also can include brassicas
- Again, here is where living on the coast has it's advantages and we don't have hard or killing freezes or harsh winter temperatures that last for a long, extended period of time.
- But this is where if you don't live in close proximity to the water, say you live in Tidewater, Toledo, Otis or Eddyville, more inland locations within our county, you will be more likely to experience these "harsh winter" temperatures and that makes a difference for your garden crops.

Tips

- Uncover beds to let frost sweeten them
- Kill pests at the same time (maybe not as much because we really don't get that cold on the coast – remember our average temperatures in the winter are low 40's and mid-50's)
- Root vegetables (mostly beets, carrots, etc.) become sweeter after a frost because it causes the plants to concentrate its sugars.
 - Ex: kind of like our extremities when it is extremely cold outside, our blood moves to our core and surrounds our organs. And that's why our fingers and toes get frostbite, because our blood is keeping the important body parts alive. It is a similar situation with plants. Sugars are the "blood" that, when it gets really cold to freezing, moves to the core of the root vegetable giving it the energy it needs to stay alive and as a result the root vegetable becomes sweeter with frost or freezing temperatures.

Tips on Overwintering Crops

- As with all cool season/winter crops & overwintering crops, cool weather slows down growth. If you want to have a spring harvest you need to be at
 - 75% maturity by the time our days have shorter amount of daylight (less than 10 hours), so around the end of daylight savings time – end of October to first week of November.
- Factors to determine this is
 - # of days to germination
 - # of days to harvest
 - Add two more weeks from the first frost date due to the slowing of growth in cool weather and you come up with your planting date.

- Ex: Cauliflower – 10 to 15 days to maturity, 65-70 day to harvest. Two weeks added from first frost and you need to plant your early September to be at a 75% maturity for a spring harvest.
- If you want to harvest during the winter months, you will need to be at
 - 90% maturity by the time our days have shorter amount of daylight (less than 10 hours), so around the end of daylight savings time – end of October to first week of November.
 - Use the same Factors as above however, you will need to plant sooner to be at the 90% or closer to 100%
 - You will be planting in late August maybe even mid-August.
- Here is also when we need to consider where you live in the county and plant accordingly – are you inland and your days are a little bit shorter earlier than if you have a view of the setting sun? So, you may need to plant as mentioned above, however, if you live closer to the water and stays a bit lighter longer, you may need to adjust a little bit and plant later.

I asked at this time as a point of discussion and engaging the audience

“After learning of the different cool-season and winter crops available to grow here on the coast, which crops do you see yourself trying this year or in the future?”

Helpful Information

- Frost Terms:
 - Advantages to living on the coast
 - No killing or hard freezes
 - No extended days under 32 degrees (however that too is changing)
 - New climate anomalies are becoming more of a reality
 - See colder winters even closer to the water
 - Warmer summers with shifts happening in other months than are typical
- Hardy
 - What does it mean?
 - Plants that are hardy can withstand heavy frosts below 28 degrees
 - Some non-hardy plants can withstand colder than normal temperatures if they have protection.
- Semi-Hardy
 - What does it mean?
 - Plants that are semi-hardy can withstand moderate to light temperatures from 28 degrees to 32 degrees.
 - Exposed tops or outer leaves may die but inner leaves or root vegetables are usually un-damaged
- Tips:
 - Harvest above freezing if you don't have plants protected
 - Allow plants to warm up
 - Be aware of weather/frost warnings
 - Clear skies/no clouds - cover your plants as it will be much colder than expected
 - Here is also where a journal is important. Writing down when temperatures dropped the first time in the year, early November, did we have an earlier snow – December instead of the usual February or March months, etc. and this will help you when you need to know when to cover those crops that need a little extra protection

Hardiness Zones:

- Our Hardiness Zone – 8b includes all the cities and towns from Astoria to Florence.
- Are a good reference, but this is again where journaling helps with your specific area
 - Are so general and don't consider the diversity we have here in our county and other counties as well.
 - We have microclimates everywhere within our county.
 - Even within 5 miles there may be
 - temperature differences
 - Marine layers of fog where there wasn't any ½ mile before
 - wind or rain or even hail

I've talked about this throughout the session today – Where you live makes a difference in many factors that you need to take into consideration when planning your garden, regardless of what time of year you start your garden.

I cannot grow watermelon or corn here on the coast as I live .3 to the beach. However, someone in Tidewater, Eddyville, Otis or Rose Lodge, may have better overall temperatures and ability to grow these crops.

Understanding the Hardiness Zone or map you must realize it is

- AVERAGE ANNUAL EXTREME MINIMUM TEMPERATURES for the last 20 years.
 - So that means that to get the average they take the lowest and the highest temperatures during the past 20 years and then they average those temperatures.
 - The map states that at some point and time in the past 20 years Zone 8a has had “extreme minimum temperatures” of 15 to 20 degrees.

Seed Packets:

Just showing where there is “cool weather” mentioned on the packet. Point out the # of days to harvest, # of days to germination. When the little map on back says to plant April – May they are talking summer gardening, not necessarily winter gardening.