

Planning a Cool Weather Garden



Cowlitz County

WASHINGTON STATE UNIVERSITY
EXTENSION





What you will learn:



- What is cool weather gardening?
- Climate and Microclimates
- Site Selection
- Choosing plants and varieties that will succeed
- Seeds vs. Transplants
- When to Plant
- Irrigation
- Pest Management
- Ways to help the plants survive in cool weather.





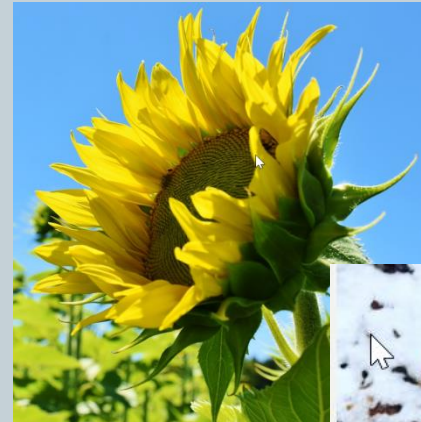
What is Cool Weather Gardening?



Basically,

Cool Weather Gardening is growing vegetables that can be harvested in the late **fall**, over the **winter**, or the next **spring**.

Generally, the plants are started in July or August when the weather is warmer, and harvested in the winter months.





However!



- Be sure to find out what works best for **each plant** you are planning to grow!
- For example, Broccoli is set out as transplants in **June-August** to harvest through the **winter**
- However, Garlic is best planted by the end of **October** is harvested the next **June or July**.





Advantages of Growing a Cool Weather Garden



- It **extends the growing season**
- You can grow **fresh vegetables** more months of the year
- **Fewer insect pests**, although there still are SOME
- Washington has **cooler summers** and **milder winters** than other places
- The **taste of vegetables after a frost**—Some vegetables taste much sweeter!





Cool Weather Gardening Options!



- Not all cool weather gardening is done in the dead of winter!
- Here are some common options
- **Option A:** a “Second” summer garden
- **Option B:** an “Over Winter” garden
- **Option C:** a “plant in late fall for early spring” garden.



Try them all!



Option A: “Second” Summer Garden



- **Grow a “second” crop**
- **Start in July**
- **Grow plants that can be harvested before the fall freeze (Around Nov. 1)**
- **Choose varieties that have lower “days to maturity” numbers.**
- ***Frankly, that is what most of us do just to grow ONE “summer” garden!***





Option B: Plant in summer, harvest in winter



It is for plants that can handle the cold

But NOT for tender plants like tomatoes





Option B: Plant in Summer, harvest in Winter



- Plant in July and August only plants that can survive the winter weather:





COOL!



- Plants grow in the summer
- Then “hold” in the garden, making your garden a living refrigerator!





Option C: Fall Plant for Spring Garden



- Plant in the late summer or fall
- Plants sprout in the spring!





Spring Garden: **Key Idea**



- Be sure to time the planting of your crops so they are established, but not completely mature.
- Planting too soon can cause the plant to “bolt” and put on seeds
- Bolted plants will not overwinter well.





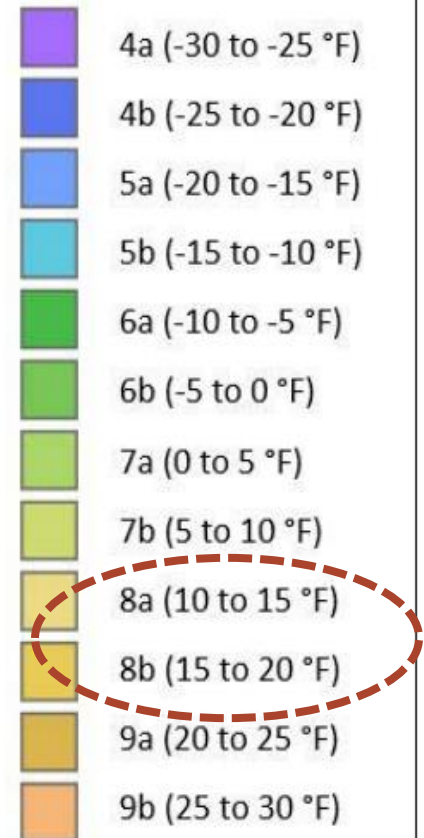
How will you know when to plant?

Know Your [Micro] Climate!



- Cowlitz County is generally 8a – 8b
- Average minimum temperature
 - **8a: 10°-15°**
 - **8b: 15°-20°**
- YOUR garden may be different!
 - Higher elevation?
 - Sloping ground that holds cold air?
 - Nearby walls or fences reflect heat?
 - Wind protection from fencing?

Average Annual Extreme Minimum Temperature 1976-2005





Be Aware of Weather and Temperature Issues



- Know the Last and First Frost dates
- May 1 to Nov. 1 most years = frost free
- First Frost date is more important for Winter Gardening.
- Be aware of cold snaps!



- Rain! 40 – 50 inches/year
- 75% falls between October and May
- Reduced Sunlight in winter

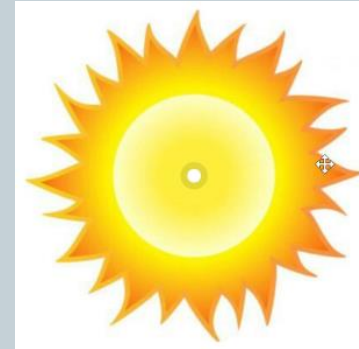




Site Selection



- Choose a site carefully!
- Choose an area with full WINTER sun
- Drainage!
- Avoid standing water!
- **Raised beds help with that!**

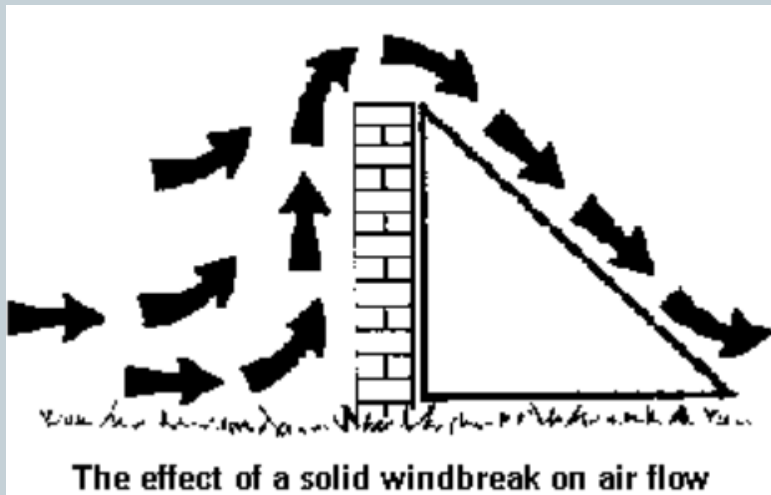
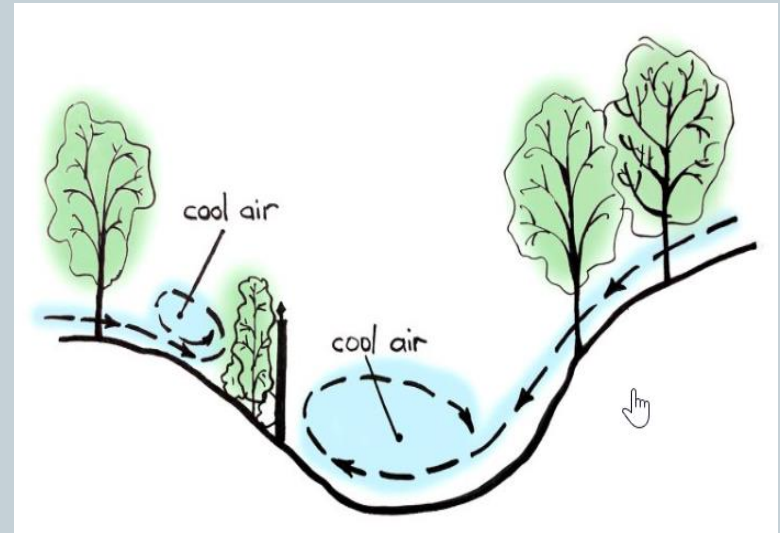




Protect the plants!



- Protect plants from wind
- Be aware of Frost Pockets
- Buildings can reflect heat if they are fairly close



Walls and Fences can block wind



Plan for Access to the Garden!



You will need to walk in the garden during the muddy winter time, so adding wood chips, stepping stones, or other Mud Defeating Material is very helpful.





Choosing What to Plant And When to Plant it



TERRITORIAL SEED COMPANY
Winter Gardening Chart

Vegetable	Sowing Date Range						Harvest	Max Storage Time	Storage Temp	Storage Humidity	Freeze Out Temp
	May	June	July	Aug.	Sept.	Oct.					
Arugula							Winter Sowing	1 week	34-40°F	90-95%	5-10°F
Beets							W. Winter	4-6 wks	33-40°F	90-95%	15-20°F
Beans, Fava							Spring Sowing	2 wks	34-40°F	Dry	10-20°F
Broccoli - Autumn Harvest							W. Winter	2 wks	33-40°F	90-100%	Below Heavy Frost
Broccoli - Sprouting							Spring	2 wks	34-40°F	90-100%	15-20°F
Brussels Sprouts - Autumn Harvest							W. Winter	3-5 wks	34-40°F	90-100%	After Severe Frost
Brussels Sprouts - Winter Harvest							Winter	3-5 wks	33-40°F	90-100%	After Severe Frost
Cabbage - Late Summer Harvest							Late Summer	3-5 wks	33-40°F	90-100%	Below Heavy Frost
Cabbage - Autumn/Winter Harvest							W. Winter/Winter	5-6 wks	34-40°F	90-100%	Below Heavy Frost
Cabbage - Winter Harvest							Winter	5-6 wks	34-40°F	90-100%	Below Heavy Frost
Carrots							Winter Sowing	4-5 wks	33-40°F	90-95%	5°F
Cauliflower - Summer Harvest							Late Summer	3-4 wks	34-40°F	90-95%	10-15°F
Cauliflower - Autumn Harvest							W. Winter	3-4 wks	33-40°F	90-95%	10-15°F
Cauliflower - Spring Harvest							Spring	3-4 wks	33-40°F	90-95%	10-15°F
Chinese Cabbage							Late Fall	2-3 wks	34-40°F	90-95%	20°F
Collards							Winter Sowing	1 week	34-40°F	90-95%	5-10°F
Corn Salad							Spring	1 week	35-40°F	90-95%	5°F
Endive							Winter	2 wks	34-40°F	90-95%	Below Heavy Frost
Fennel							W. Winter/Spring	2-3 wks	33-40°F	90-95%	Below Heavy Frost
Garlic & Shallot Bulbs							Summer	5-8 wks	33-50°F	90-70%	15°F
Kale							Winter Sowing	2-3 wks	34-40°F	90-95%	5-10°F
Kohlrabi							Winter Sowing	2-3 wks	34-40°F	90-95%	5°F
Leeks - Autumn Harvest							Fall/Winter	8 wks	33-40°F	90-95%	5°F
Leeks - Winter Harvest							Winter Sowing	8 wks	34-40°F	90-95%	5°F
Lettuce							Fall/Winter	2 wks	34-40°F	90-95%	5-10°F
Mustard Greens							Winter	2 wks	34-40°F	90-95%	5°F
Onion - Bunching							Winter Sowing	3 wks	34-40°F	90-95%	5-10°F
Onion - Overwintering & Shallots							Spring Sowing	4-8 wks	55-65°F	60-70%	5-10°F
Parsnips							Winter	4-6 wks	33-40°F	90-95%	5°F
Peas - Autumn							Fall	2 wks	33-40°F	90-95%	15°F
Peas - Overwintering							Spring	2 wks	33-40°F	90-95%	15°F
Radicchio							Fall/Winter	3-4 wks	33-40°F	90-95%	15-20°F
Radishes							Winter Sowing	2-4 wks	33-40°F	90-100%	15-20°F
Rutabagas							Winter Sowing	4-6 wks	33-40°F	90-95%	20°F
Spinach							Fall/Winter	1-2 wks	33-40°F	90-95%	5-10°F
Swiss Chard							Fall/Winter	1-2 wks	33-40°F	90-95%	5°F
Turnips							Winter Sowing	4-5 wks	34-40°F	90-95%	20°F



Because each vegetable has different needs, it is best to have a chart similar to the one put out by Territorial Seeds.

Click Here
for Winter
[Garden](#)
chart



Seeds vs. Transplants?



- Use a planting guide.
- Some, like Beets, prefer direct seeding.



- Broccoli for spring harvest is planted when it can be too hot for seeds to sprout, so transplants may be better.



- Garlic uses the cloves of the garlic, so, in a way, it is **neither** a “seed” nor a transplant! (but on charts it is designated as a “seed”).



Seeds vs. Transplants?



- For some vegetables you can use transplants or plant seeds.
- However, **often, garden space is being used for summer crops** right when you want to plant your winter ones!
- Transplants can be started in a different location, and put in the garden when the space opens up.



Irrigation



- Watering the seeds or transplants that you are growing for Fall, Winter or Spring harvest is very important.
- Often, the seedlings are started in the hottest and driest part of the summer.
- Keep seeds and plants moist but not overly wet.
- Transplants may be easier to water in pots than trying to keep up with the watering in the garden in August!



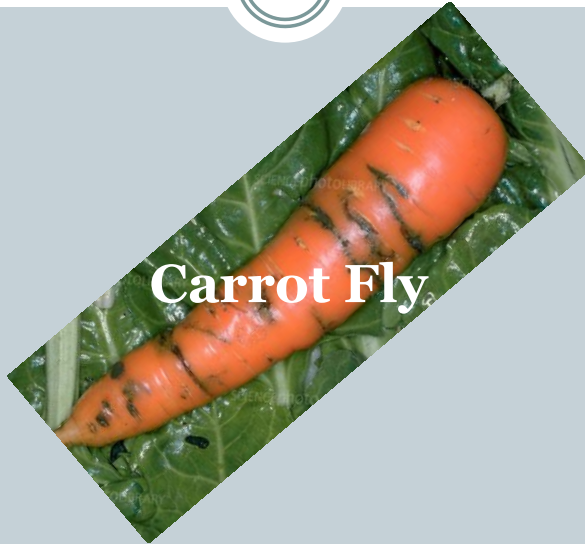
Some Pests– Even in Winter!



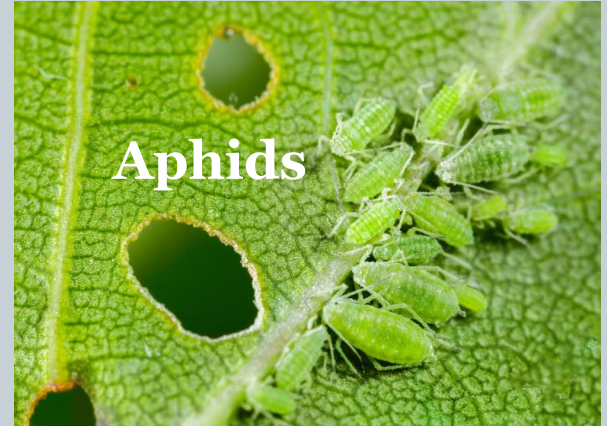
Leaf Miners



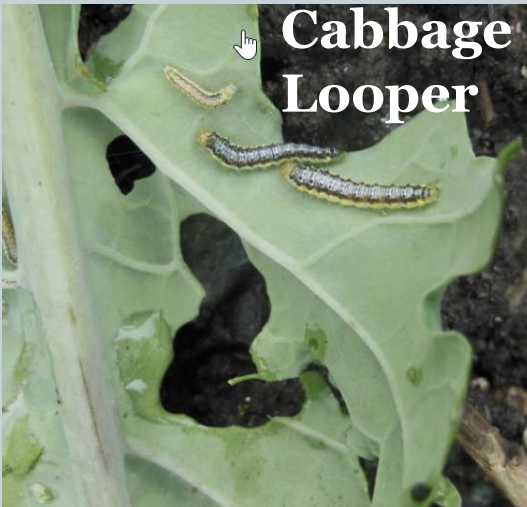
Carrot Fly



Aphids



**Cabbage
Looper**



**Flea
Beetle**



**Onion
Thrips**





And.... SLUGS!

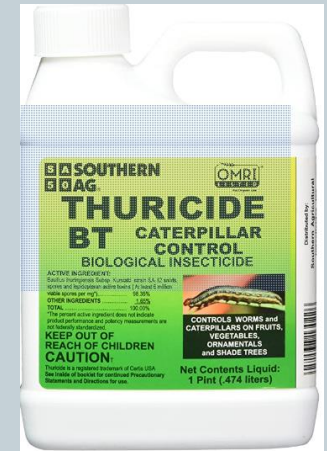
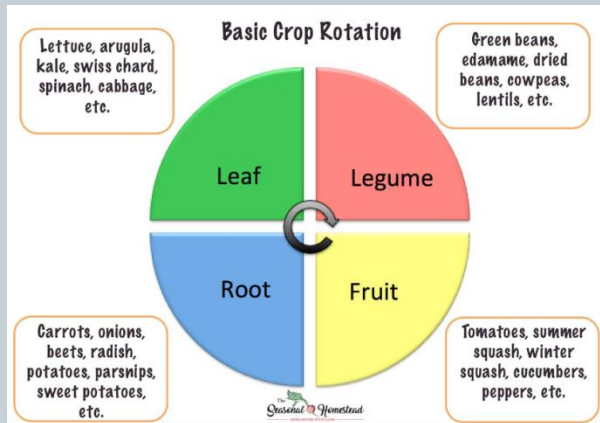




Pest Controls



- Research each pest, and use Integrated Pest Management.
- Start with the least toxic options first!
- Row Covers can be useful in blocking pests.
- Crop rotation can help.





How to Protect Plants in Winter



- There are many ways to give plants extra protection
- Row covers can be laid over the plants-4 to 8° temperature improvement based on how thick it is.
- Low plastic tunnels can raise the temperature and protect from snow and rain
- Cloches can protect individual plants





Handout: Information on Specific Plants



Planting Guide for Fall and Winter Gardening

BEANS	Plant Bush beans until late July to produce a good crop before frost. The plants develop more rapidly in the warm summer months than in early spring. Potatoes take time to develop and should be planted in late August. Check days to maturity on seed packets.
BEETS- Winterkeeper, Albina Verduna. Will resprout in spring for greens	Beets can be planted until August for a dependable crop. If you want beet greens, plant in late August. *Mature vegetables can be stored in the ground and used as needed. Minimum Temperature 10; harvest all winter-through spring
BROCCOLI Purple Sprouting, White Sprouting Late, Rudolph	Direct seed until mid-July and transplant until mid-August. A fall broccoli crop will usually continue producing past Thanksgiving and sometimes until Christmas. Minimum Temperature 10; harvest early spring
BRUSSELS SPROUTS Jade Cross "E", Lunet, Oliver, Red Rubine	Brussels sprouts require a slightly longer growing season than broccoli. Direct seed by July 1 and/or transplant by August 15 for a dependable fall crop. In protected spots harvest can continue into mid-winter. Minimum Temperature 10

[Click here for chart](#)

For a list of Great Links to resources, [Click Here!](#)



References:



- Territorial Seed Company, Fall and Winter catalog; https://issuu.com/territorialseedcompany/docs/winter_2022_with_links
- Territorial Seed Company: Fall and Winter Planting Guide. <https://territorialseed.com/blogs/fall-winter-growing-guides/fall-winter-basic-growing-guide>
- Winter Vegetable Production on Small Farms and Gardens West of the Cascades <https://catalog.extension.oregonstate.edu/sites/catalog/files/project/pdf/pnw548.pdf>

