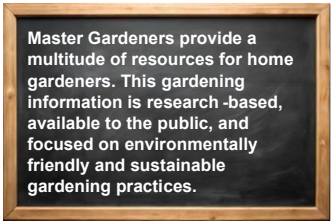




1


Notices



2




3



Need to Know

If you don't try, you won't succeed.



4

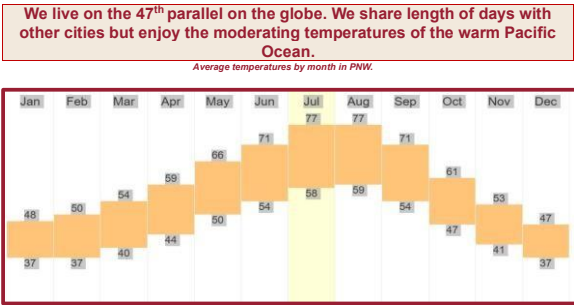


Know your first frost dates.

Oct 28th to Nov 30th is average for PNW

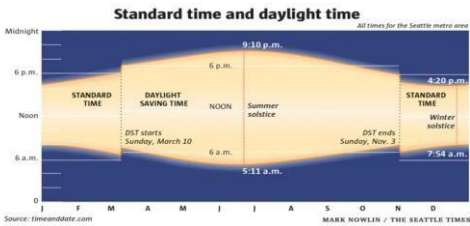


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6

Average Daylight Hours in PNW:
8 hours November to March
15+ hours at Summer Solstice



7

Vernalization

Definition:

The induction of a plant's flowering process by exposure to prolonged cold of winter. After **vernalization** plants acquire the ability to flower and produce seeds.

Vernalization temperature for most vegetables:

43 degrees



8

How to grow vegetables in early spring and late summer outside the temperature range needed.

Early Spring Before Warm Nights Late Summer As Cooling Begins

- | | |
|---|---|
| <ul style="list-style-type: none">• Cold Frame• Row Covers<ul style="list-style-type: none">• Plastic Sheetin• Unheated Greenho | <ul style="list-style-type: none">• Hot top• Row Covers<ul style="list-style-type: none">• Garden Cloth 5 degrees• Plastic Sheeting 10 degrees• Cold Frame• Heavy Mulch of Straw |
|---|---|

9

[illegible][illegible]

With Protection (now 15 degrees!)

[illegible]

12

Vegetable Freeze Tolerances

- Brassica family: Broccolini, Brussels Sprouts, Cabbage, Cauliflower, Collards, Kale, Kohlrabi
- Of the Brassicas, Kohlrabi, Broccolini and Cauliflower are most sensitive to freezing. Harvest before extended freeze periods.
- Legume family: Bush, Pole, Fava Beans & Snap, Snow, Shell Peas.
- Of the Legumes, Fava Beans and Peas tolerate freezing temperatures with protection.
- Root crops: Beets, Carrots, Parsnips, Radishes
- Of the Root crops, Carrots and Parsnips tolerate freezing temperatures without protection. Harvest all other root crops prior to freezing.
- Greens: Choose seeds for cold temperatures tolerance. Harvest if in doubt prior to freezing.

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Onions

- Plant by seed early in July or August.
- Plant transplants by September 1.
- Mulch well during winter freezing.
- Cover bed with plastic sheeting to protect from soil freezing.
- If very low winter temperatures are predicted, harvest what you can or hope for the best!
- Onions for winter: Cippolini style, Bunching, Leeks
- Note: short and long day onions are photoperiodic, needing a required number of daylight hours to bulb - at least 10-12 hours. Not good overwintering choices for short days of winter.

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Strategies for Early Spring Harvests

- Pay attention to the Territorial Growing Guide by covering crops needing protection.
- Plant over-wintering crops with purpose of having plants emerge and develop first set of true leaves JUST prior to freezing temperatures, or, to germinate with rising spring temperatures and increased daylight hours.
- Choose plant seed developed for over-wintering where possible.
- Seed successively up until October 1. Examples would be lettuce, radish, endive, tatsoi.
- Allow for saturation of soil by fall rains, then cover garden cloth.

- Once temperatures approach freezing, cover with plastic sheeting. Watering is unnecessary until spring as condensation on warm days waters crops under the row covers.

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Vegetable Seed Germination Temperatures

Vegetable seed	Low end of optimum soil temperature range (°F)	High end of optimum soil temperature range (°F)
Pea	40	75
Lettuce	40	80
Spinach	45	75
Carrot	45	85
Cauliflower	45	85
Radish	45	90
Cabbage	45	95
Beet	50	85
Chard	50	85
Onion	50	95
Bean	60	85
Tomato	60	85
Corn	60	95
Cucumber	60	95
Pepper	65	95
Pumpkin	70	90
Squash	70	95
Melon	70	95

Note: L & H Optimal soil temperature range for seed germination of popular garden vegetables. * Optimum soil water: 60-65%
Source: Handbook for Vegetable Growers (2nd Edition)

16



Soil & Seeding

Anticipation is a gift we can give ourselves



17

Seed starting mixes vary from spring to summer.

- Spring seed starting mix:
- Summer seed starting mix:

- One part each:

• Shredded Coir

• Perlite

• Vermiculite
- One part each:• Potting Soil

• Shredded Coir

• VermiculiteCompost or Organic Fertilizer



Keep it loose and peat free!

Photo by: [unreadable]

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Perlite versus Vermiculite

Perlite	Vermiculite
<ul style="list-style-type: none">• Volcanic glass that expands when heated• Loosens soil for improved root growth• Improves soil drainage	<ul style="list-style-type: none">• Naturally occurring hydrous phyllosilicate mineral.• Loosens soil for improved aeration and root growth• Is <i>hygroscopic</i> which improves water retention and distribution in soil• Improves drainage

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Seed Tray Essentials



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Planting in Seed Trays

- Benefits: Easier to regulate water, shade, and seedling use.
- Use larger 2"x3" cell seed trays or 4" pots and label with seed type and date planted.
 - Water from the bottom by using a water retaining tray.
 - Plant one seed per cell for optimal use of seeds and to avoid thinning trauma to seedling.
 - Use plastic dome to create consistently moist environment until seedlings appear.
 - Start seeds indoor, or outdoor in a shaded spot.

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Soil Seeding Basics



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Planting in Soil

- Seedlings need consistent moisture. Consider using repurposed plastic containers to provide a moisture recirculation dome until seedling emerges, or mulch with straw.
- Provide shade for tender seedlings. Boards across raised beds or shade cloth provide protection to emerging seedlings.
- Some crops tolerate shade from hot summer sun: lettuce, beets, carrots, fennel, radish, onions.
- Use mature plants like tomatoes to shade your seedling.
- Be mindful of companion planting recommendations.

23

Great opportunity to hone your skills for companion planting



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Planting Strategies

A seed catalog, a cup of tea, and the dream begins.



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Consider this....

- Plan for fall and winter crops when you plan your summer garden.
- Map out seed starting strategy: month and space
- Fill empty spaces as plants mature and crops are harvested.
- Add compost as you add plants.
- Learn companion planting preferences.
- Keep a garden journal.

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29

30



Veggies that Made it to March

31



Protect the crops with garden cloth.



6mm plastic sheeting can change the temperatures by a whole zone. That is 10 – 15 degrees!



Season Extenders

Season Extenders



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Consider using a cold frame for cold temperature protection.

Invest in a greenhouse.

Garden Cloth



34

Season Extenders can warm spring and late season soil and protect plants from seasonal cool temperatures.



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Plastic Sheeting and a Greenhouse



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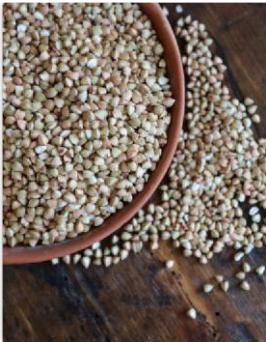
Seed Storage



37

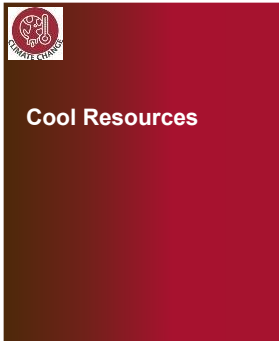
Check out these
great seed
sources

- Rareseeds.com •
- Seedsavers.org
-



- Uprisingorganics.org
- TerritorialSeed.com

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Cool Season Gardener
Extend the Harvest, Plan Ahead, and
Grow Vegetables Year Round
by Bill Thorness ; 2013

Four Season Harvest by Eliot
Coleman; 1992 & 1999

The Self-Sufficient Gardener by
John Seymour; 1914

Carrots Love Tomatoes Secrets of
Companion Planting for Successful
Gardening by Louise Riotte;1975 &
1998

39



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Photo Credits

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- Remaining photos from the public domain.
- Temperature and Daylight graphs from timeanddate.com

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Upcoming Presentations

Growing GroceriesPNW Garden

2025 Warm Season Series2025 Series 2
Wednesdays 7:00pm-8:30pmSaturdays 9:30am-



Savvy

10:30am



Wed, April 16	Growing the 'Other' Edible Nightshades: Peppers, Tomatoes, Eggplant	Sat, April 12	Gardening with Children
Wed, April 30	Roots and Rare Fruits	Sat, April 26	Plant It Where the Sun Don't Shine
Wed, May 14	Grow Cukes, Squash and Melons- Big and Small	Sat, May 3	Protecting Our Unsung Heroes, Our Pollinators
Wed, May 28th	The Nutritional Powerhouse: Corn and Beans (legumes)	Sat, May 17	Understanding King County Soils for Better Gardening
Wed, June 11	Summer Starts for Fall and Early Spring Harvests	Sat, May 31	Rain Gardens
Wed, June 25	Caring for Community: Master Gardener Demonstration Gardens		
		Sat, June 7	Deer Resistant Gardening

More info: <https://kingcounty.mastergardenerfoundation.org/education>



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Master Gardener Resources



Ask a Master Gardener

Visit: <https://extension.wsu.edu/king/> / [ask-a-master-gardener](#)

Become a Master Gardener

For information on King County Master Gardener training (including signing up for the email notification list), visit: <https://extension.wsu.edu/king/gardening/become-a-master-gardener>

Applications for the 2026 class will open in September 2025

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Thank you for the support!


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King County Master Gardener Program
<http://extension.wsu.edu/king/gardening>

- Demonstration Gardens
- Plant Clinics
- Education Outreach
- Science-based Publications

Master Gardener Foundation of King County
<http://www.mgfkcc.org>

- Fundraising for these programs

More information about growing groceries:
<https://kingcounty.mastergardenerfoundation.org/education/grow/>

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Questions?



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