



GRAPE GROWING AND PRUNING

Cowlitz County
Master Gardener Program
Workshop

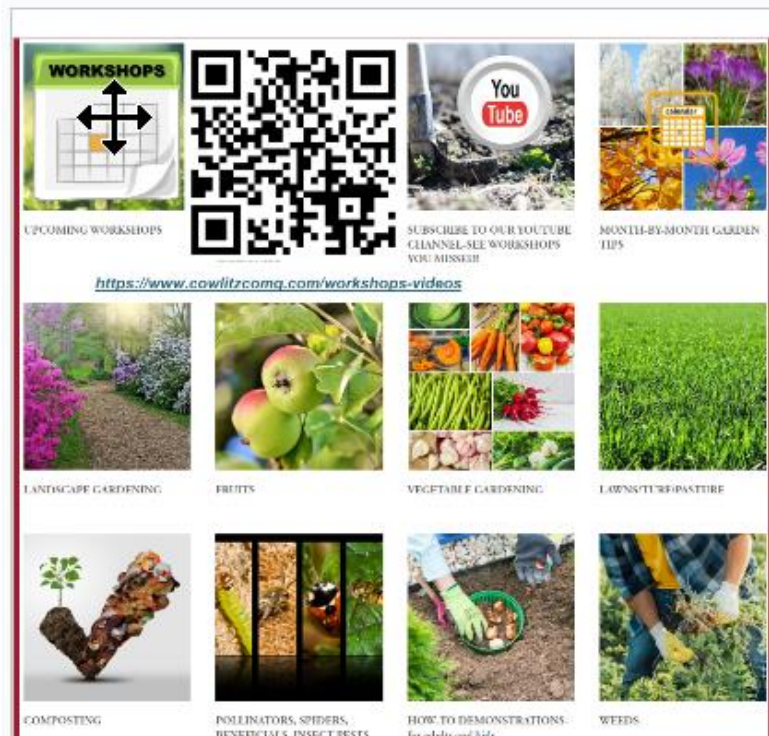
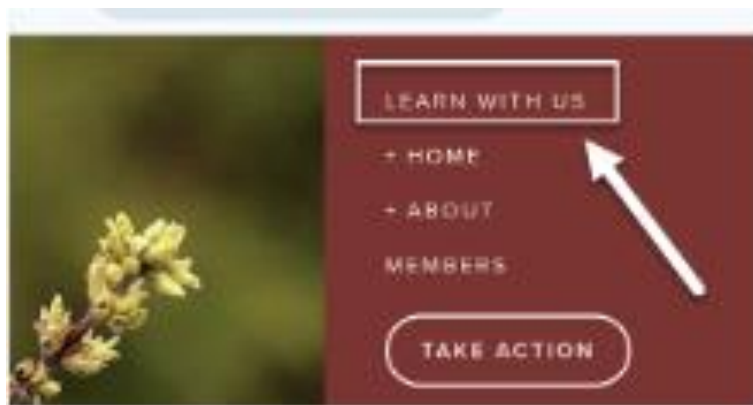
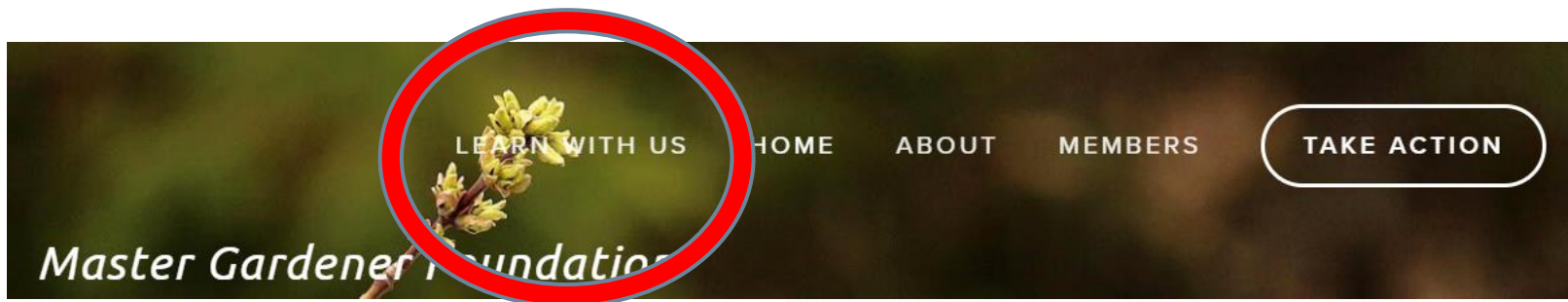
WASHINGTON STATE UNIVERSITY
 EXTENSION
Master Gardener Program

Sara Clark, Veteran Master Gardener, Grape Wrangler

UPCOMING CLASSES!

Sat 2/24 10 - 11:30 am	LIVE Grape Pruning and Care -Presentation and Demonstration	Sara Clark
Tue 2/27	Transforming Your Landscape: Planning Tips	Wendy Santiago
MARCH CALENDAR: https://www.cowlitzcomg.com/public-events		
Sat 3/2 10 - 11:30 am	LIVE Seed Starting Class	Alice Slusher
Tue 3/5	Succulents	Heidi Hubler
Tue 3/12	Blueberries	Marsha
Tue 3/12	Greenhouse	Gene McConnell
Tue 3/19	Raspberries	Alice
Tue 3/26	Gardening 101	Sara

Cowlitzcomg.com



You are going to have questions!

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- ☐ Learn With Us
- ☐ Fruits Tab
- ☐ Look for Grapes



UPCOMING WORKSHOPS



HAVE A GARDENING PROBLEM? ASK A MASTER



SUBSCRIBE TO OUR YOUTUBE CHANNEL-SEE WORKSHOPS YOU MISSED!



MONTH-BY-MONTH GARDEN TIPS



LANDSCAPE GARDENING



VEGETABLE GARDENING



LAWNS/TURF/PASTURE



COMPOSTING



POLLINATORS, SPIDERS, BENEFICIALS, INSECT PESTS



HOW-TO DEMONSTRATIONS for adults and kids



WEEDS

Plant Sale: May 11 @ Fairgrounds

**MASTER GARDENER
PLANT SALE**

**SATURDAY
MAY 11
8 AM TO 3 PM**

**COWLITZ COUNTY
FAIRGROUNDS,
LONGVIEW, WA**



SAVE THE DATE

Great variety of veggies, herbs, garden plants, and
MG Crafts
Pre-sale shopping list
Fantastic Raffles!
Gardening Questions Answered

**MASTER GARDENER
FOUNDATION OF COWLITZ
COUNTY**



Growing Grapes:

Where are you in your Grape Adventure?

- What is your situation?
- Putting in new grapes, new structures?
- Established grapes?
- **perhaps a little TOO established?**



Our Outline for Today:



- Why grow grapes
- Tips for success in Western Washington
- Choosing varieties
- Choosing Grape Locations & Structures
- Site Selection and Preparation
- Planting, Fertilizing, Watering
- Training and pruning
- Maintenance during the season
- Diseases and pests



Why Grow Grapes?

□ Fruit can be used in many ways:

- Fresh Eating
- Juice
- Jellies
- Raisins
- Wines



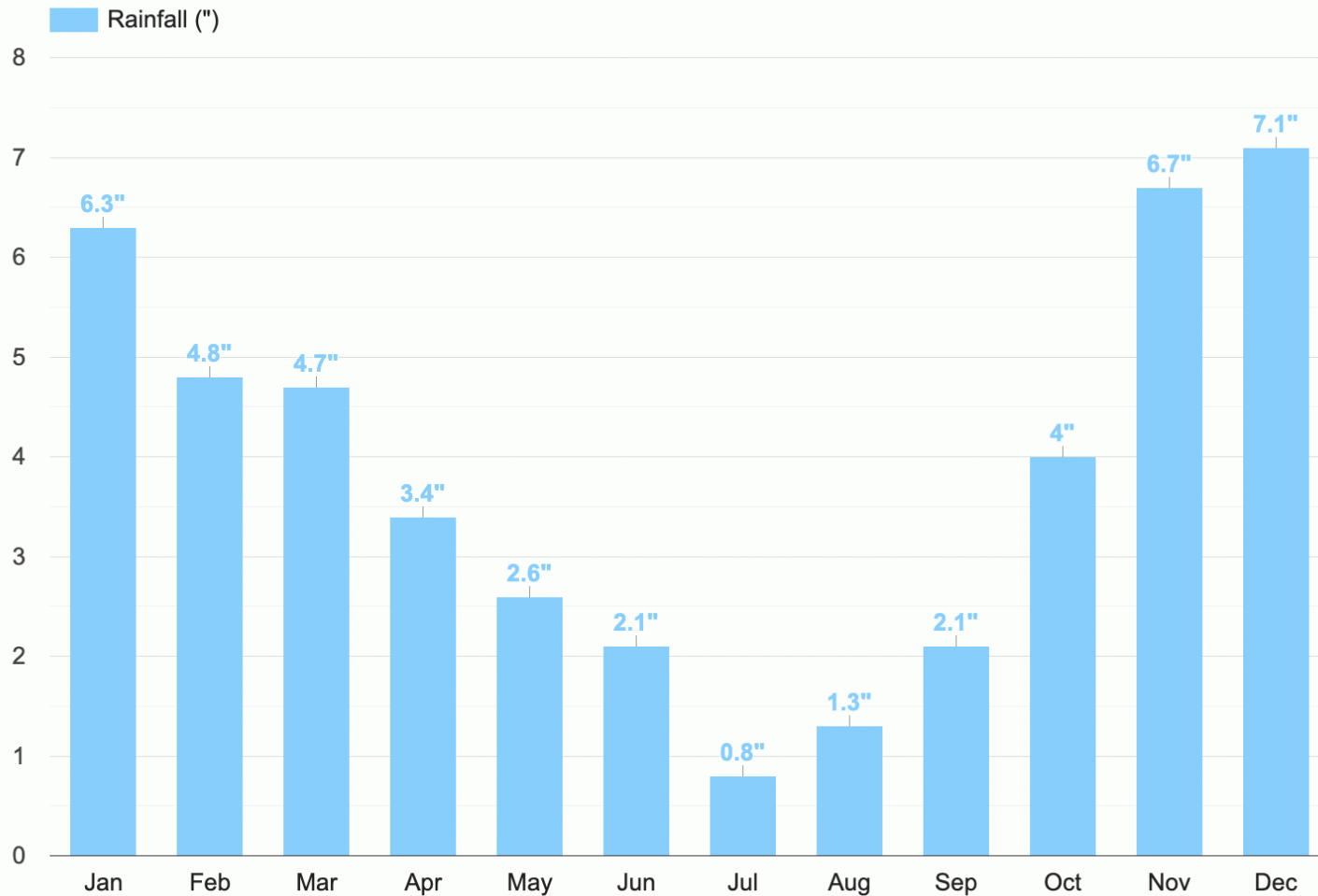
□ **Properly managed, Grapes add beauty to your landscape (and keep you active!)**

Do Grapes Grow Well In Western WA?

- YES! But... Grapes need to be chosen specifically for your area.
- Western Washington can grow grapes--- **just not ALL varieties**
- Choose varieties that will grow well for YOUR MICROCLIMATE: Know your...
 - Precipitation
 - Frost free days
 - Growing Degree Days (heat units)
 - Commonly recommended varieties for your site.

Site Selection: Precipitation!

Rainfall - Longview, WA

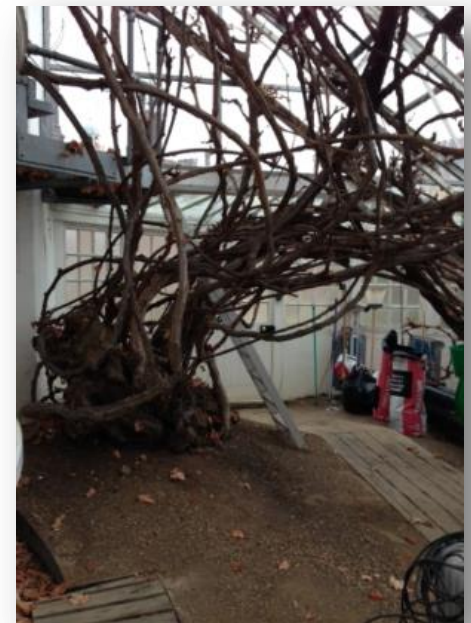


Must you water your grapes?

- **Yes,** for the first few years --to establish the plant
- **Less-** once they are established.
- **June, July and August,** keeping the soil moist is helpful for less stress on the plant, and better grapes.
- *(We had a “Heat Dome” in July of 2021...)*

Grape roots go deep over time:

One pampered grape plant in England is 256 years old, and reportedly has roots that reach **almost a mile** to the River Thames.



Site Selection: Frost Free Days

Grapes require 150 frost free days

Cowlitz County:

Last Frost Day: May 1 (or later!)

First Frost Day: November 2

=184 frost free days

Your location may vary significantly.



Growing Degree Days: Time for MATH!

- Growing Degree Days (GDD) indicates the **amount of heat available to plants during the growth season.**
- Daily GDD=
 - ▣ $(\text{HIGH temp} + \text{LOW temp}) / 2 - 50$
 - ▣ Example: High was 70, Low was 50.
 - $70^{\circ}\text{F} + 50^{\circ}\text{F} = 120^{\circ}\text{F} \div 2 = 60$
 - $60 - 50 = \underline{\mathbf{10\ GDD}}$

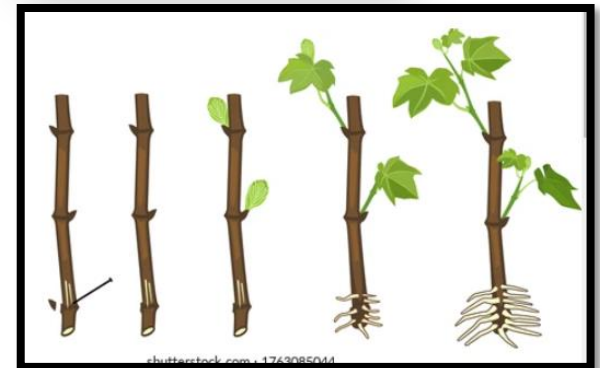
How many GDD do Grapes Need?

- The YEARLY GDD period is April 1-Nov. 7
- **Cowlitz Co. GDD averages 1864-1930**
- Cowlitz is Region 1A – IAW- the Winkler Scale Index (1500-2000GDD) *
- ****Winkler Scale: Scientific rating based on idea that Grapes don't grow when the temperature is under 50° --1A means only the earliest ripening varieties will be successful.***
- Try this: Put your Zip Code into this Website, and it will do the math for you! (Thanks, Alice Slusher)
- <https://www.greencastonline.com/growing-degree-days/home>



How to choose grapes--

- What will you use them for?
 - ▣ Table grapes for fresh eating?
 - ▣ Juicing?
 - ▣ Wine?
- Where will you get them?
 - ▣ A Nursery?
 - ▣ Create your own from cuttings?
 - (Our Grape Class includes grape cuttings)



Varieties Recommended for W. WA

- Concord— 2000 GDD
- Canadice, Interlaken, Reliance, Others –1500-2000
- Pinot Noir, Chardonnay, Riesling, Gewurztraminer:
 - 2000-2500
- Cabernet Sauvignon, Merlot – 2500
- Other Early Varieties: Einset, Venus, Himrod
- Choosing a warm, protected spot helps.
- Ask what works for others!

Grape Workshop Handout:

Grape Varieties:

Variety	Color	Ripening	American or European	Cane or Spur	Notes	Seeds
Baco	Black	Late	European (F h)*	Either	Wine / Juice	Seeded
Buffalo	Blue	Early to mid	American	Either	Table / Juice	Seeded
Campbell**	Black	Early	American	Spur (2-3 buds)	Table / Juice	Seeded
Canadice	Red	Early	American	Spur (2-3 buds)	Table / Juice	Seedless
Flame	Red	Late	American	Either	Table	Seedless
Foch	Blue	Early	European (F h)*	Either	Wine / Juice	Seeded
Glenora	Blue	Mid	American	Cane	Table	Seedless
Golden Muscat	Gold	Very late	American	Spur	Wine / Juice	Seeded
Himrod	White	Early	American	Cane	Table / Juice	Seedless
Interlaken	Green/Gold	Very early	American	Cane	Table / Juice / Rasins	Seedless
Lakemont	White	Mid	American	Cane	Table / Juice	Seedless
Lynden Blue	Blue	Mid	American	Cane	Table / Juice	Seeded
Marquis	White	Early/Mid	American	Cane	Table	Seedless
Okanogan Riesling	White	Early to mid	American	Cane	Wine / Table	Seedless
Price	Blue	Early	American	Cane	Table	Seeded
Reliance	Red	Mid	American	Cane	Table / Juice	Seedless
Siegerrebe	White/Gold	Early	European	Cane	Wine / Table	Seeded
Suffolk Red	Red	Mid	American	Either	Table	Seedless
Swensen Red	Red	Mid	American	Cane	Table	Seeded
Vanessa	Red	Early	American	Cane	Table	Seedless
Venus	Black	Early/Mid	American	Cane	Table	Seedless

* French hybrid

** Campbell and Island Belle are often called the same plant.

*** Concord grape ripening in mid-September is point of reference for determining grape ripening category.

Local nurseries are great resources

- They know what grows well in their area
- Often just looking at the catalog can give you ideas of the best grapes to grow where you are. If they don't sell it, it probably won't work well.
- Buying a grape that is several seasons old will save you time.



Site Selection: Location

- Location: South facing slope if on a hill.
- Good air circulation & Full Sun



- Soil characteristics:
 - Good drainage.
 - Sandy/gravelly soil.



Site Selection: Space & Support

- Grapes need SPACE
- Grapes need Support:

Wire Fencing?

Arbor?



Wire Fencing – Build it STRONG

Components:

- End posts (5 - 6" dia).
- Line posts (3 - 4" dia)
- Fruiting wire (10 - 12 gauge wire high tensile strength).
- Catch wires.
- Strainers, earth anchors & brace pins.

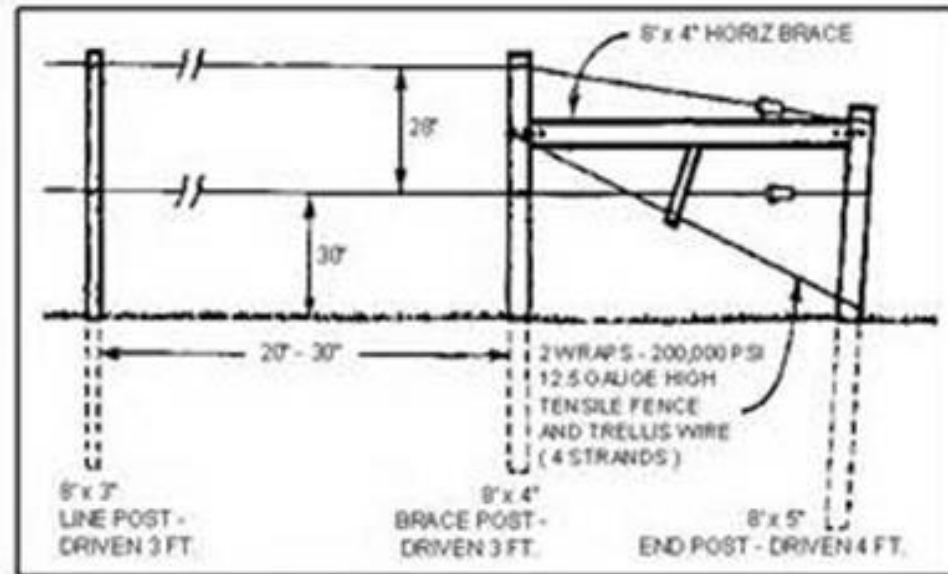


Figure 5B. Two-wire trellis for grapes. Revised from How to Build Orchard and Vineyard Trellises. Kwi Fence Systems, July 1962.



Arbors! My first arbor- 1999



Same arbor in winter: 4 grapes: 2 Venus, 1 Einset, 1 Interlaken



My 10'x 20' arbor in summer



The same arbor now. This one has 6 grapes (& 2 annoying Jasmine and a bamboo)



Another view of the 10x20 arbor



Site Preparation: Before Planting

- ❑ Ideal soil pH 6.5 - 6.8.
- ❑ Grapes are **light nitrogen** feeders.
- ❑ Cultivate area 1 year prior to planting, if possible.
- ❑ Remove competing vegetation.
- ❑ Biggest concern is the 1st year.
- ❑ Test Your Soil!

Soil Testing Options--buy a kit:

As for accuracy it does not give a precise reading. It basically tells you if your primary nutrients and pH levels are high or low. \$13 - \$20 per kit (10 tests).

A lab test will give you precise pH, primary, secondary and micronutrient levels.

The best part of this test kit is the table provided in the kit for pH levels for over 450 plants.

What's Included with this Kit

Green - pH
Purple - Nitrogen
Blue - Phosphorus
Orange - Potash

A dropper is provided to facilitate transferring the test solution into the color comparator.

- * 4 Color Comparators
- * Eye dropper for easy solution transfer
- * 40 test capsules - 10 for each of pH, N, P, K
- * Complete instructions and Fertilization guidelines
- * pH preference list for over 450 plants

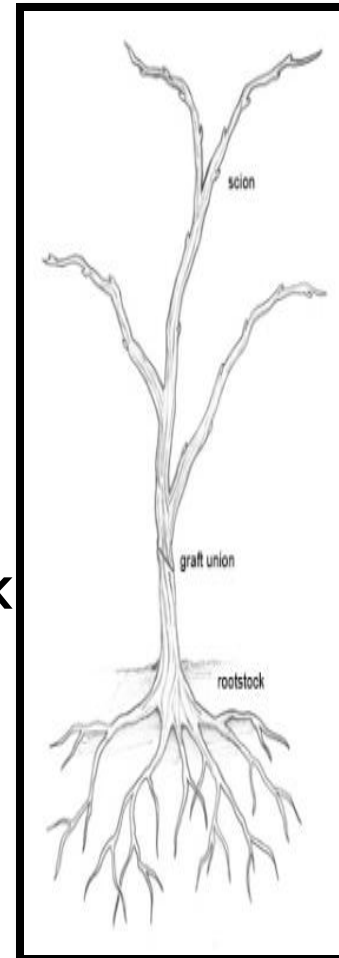
Send In a Soil Sample:

Simply Soil Testing.com

- **Basic Soil Test - \$16 per sample**
- Soil Tests and Prices through Simply Soil Testing.
 - **Includes pH, lime requirement, nitrogen, potassium, phosphorus, calcium, magnesium, soluble salts and fertilizer recommendations.**
- Basic Test + Organic Matter - \$20
- Basic Test + Fe, Mn, Zn & Cu - \$20
 - (iron, manganese, zinc and copper)
- Basic Test + S and B - \$24
 - (sulfur and boron)
- Complete Test - \$32
 - All of the tests listed above.
- Soil Texture - \$16
 - Percentage of clay, silt, sand and gravel in the soil, and classification of the soil type.
- Toxic Metal Testing - \$24
 - Levels of lead, cadmium and arsenic in the soil, and interpretation of the results.

Planting, Fertilizing and Watering

- ❑ Prepare the places where you will plant by digging, breaking up the soil, and preparing a hole.
- ❑ Fertilization is not really required, but adding compost or well rotted manure is a good idea.
- ❑ Take care not to break the roots as you plant
- ❑ If the grape is grown on a root stock, do not bury the graft! If you do, you will grow root stock
- ❑ Water well the first 3 years.



Pruning and Training Grapes

Grapes
tend
to
grow.



A Lot!



Be afraid!



VERY AFRAID!



Well, at least they look pretty in the snow...



Key Questions for Pruning:

- What kind of grapes do you have?
- What kind of structure are the grapes on?
 - Does the structure need repair?
 - Is it strong enough for the grapes?
- What kind of pruning works best for those grapes and that structure?

Where to begin pruning



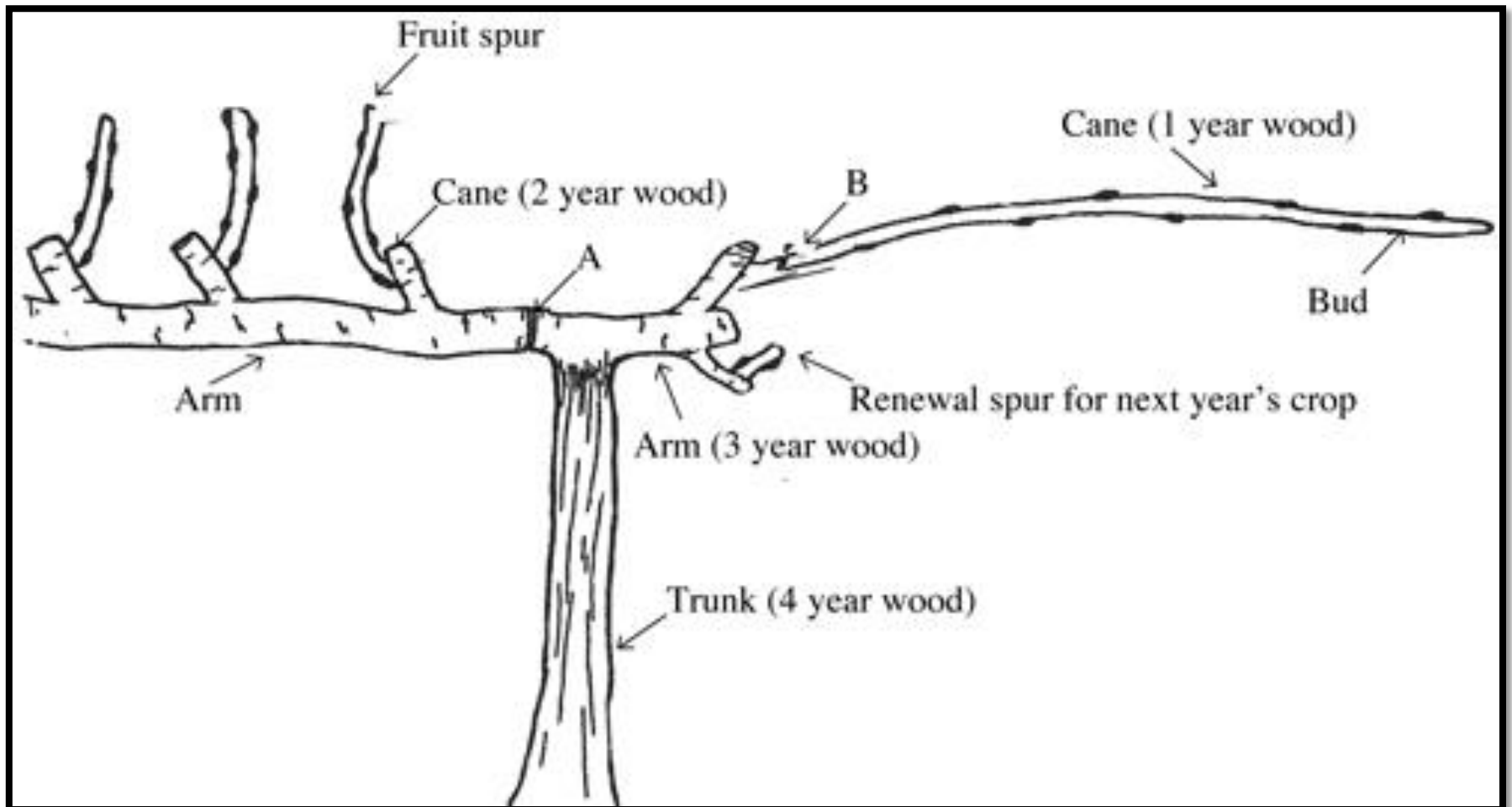
Maybe you feel like this?



Summer “pruned” canes: cut off because they were in the way.

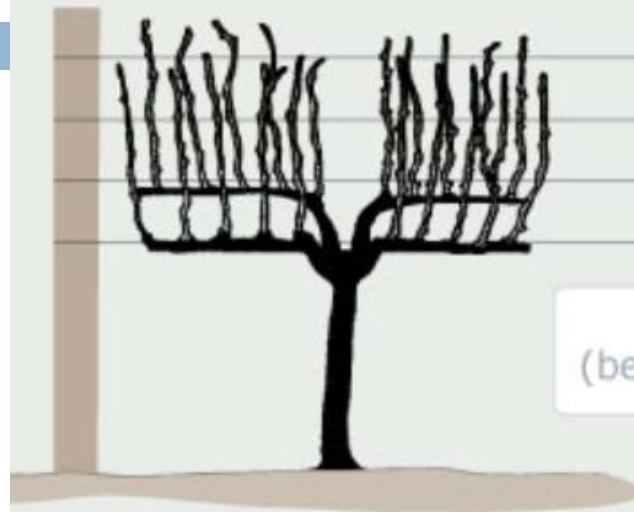


Spur vs. Cane Pruning

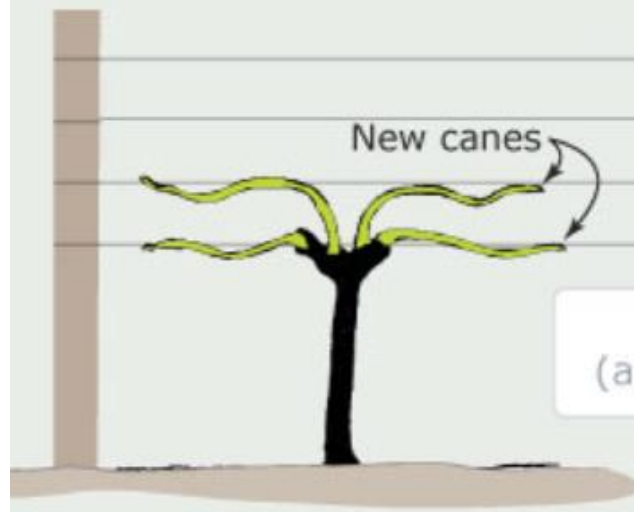
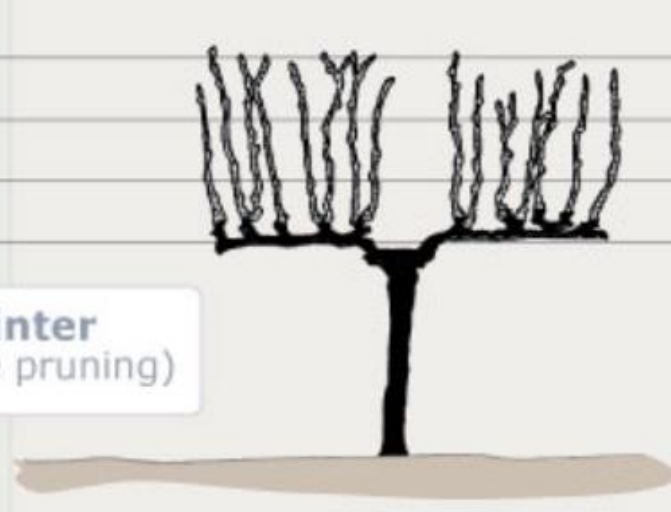


CANE PRUNING

SPUR PRUNING

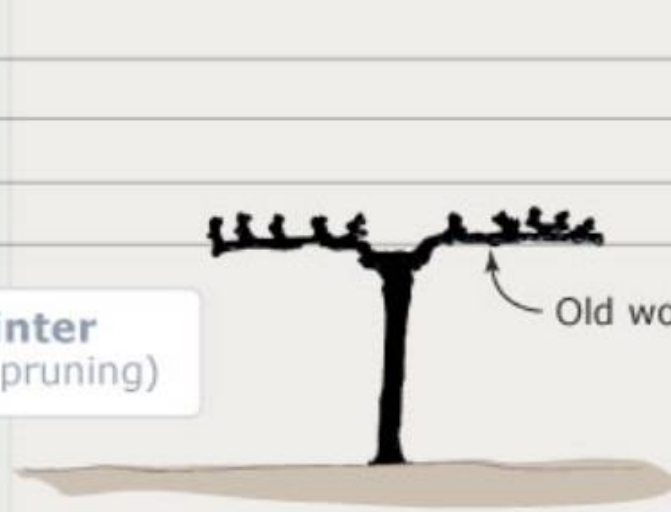


Winter
(before pruning)



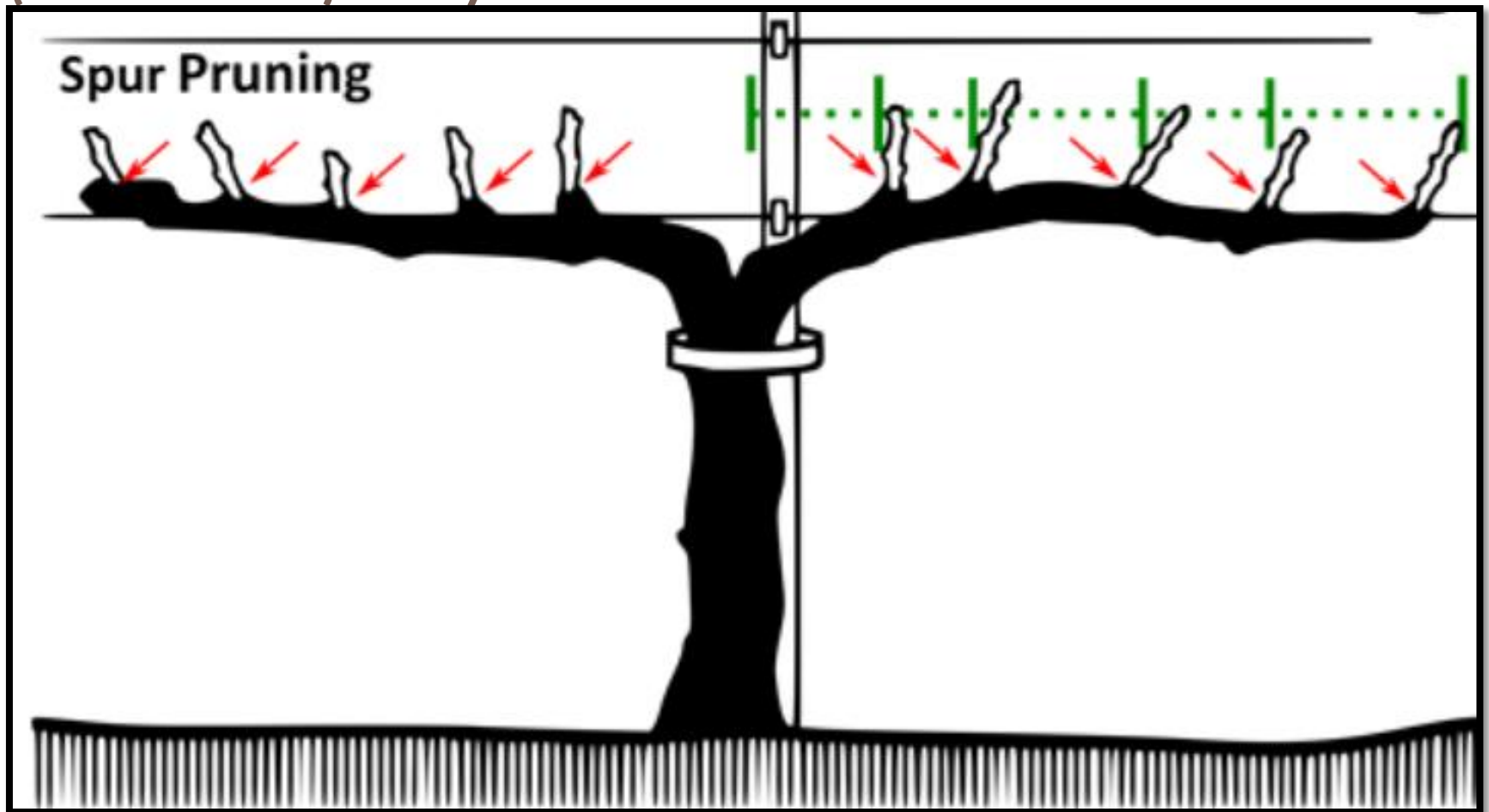
New canes

Winter
(after pruning)



Old wood

Spur/Cordon: New canes grow off the same spots as the previous canes. Cordons (branches) stay.



Over time, the Spurs can get thick.

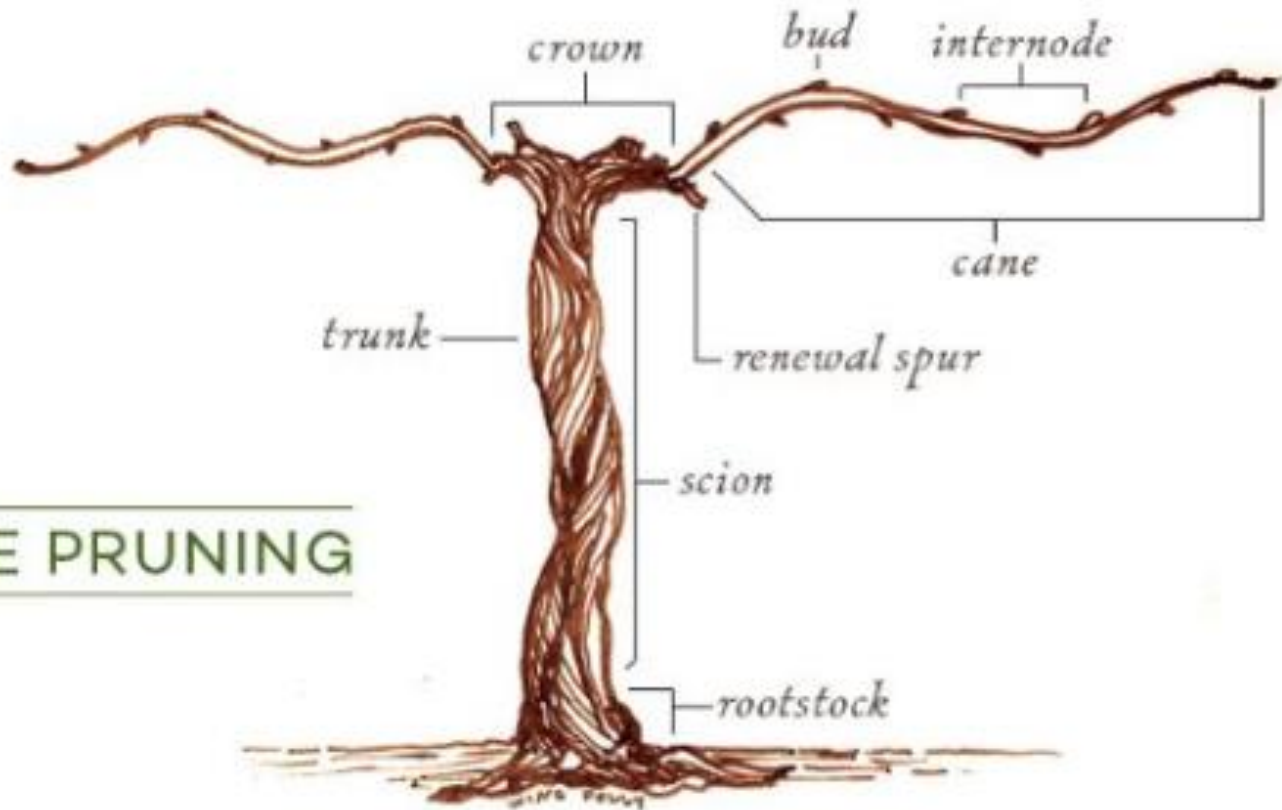


In the spring, cut back to one cane each,
leaving 2 buds



Cane Pruning: **save** a few canes, **cut** out the rest

CANE PRUNING





Which Type of pruning do I need?

== **Wine** grapes and muscadines usually need **spur** pruning,

== **American grapes**, such as Concord and Thompson Seedless, require **cane** pruning.

Where do I start?

1. Try not to panic



2. Look for canes to keep



Try to envision what you want
(and you will need soft ties!)



Grape pruning is not hard one branch at a time.



A closer look shows a stub and a branch. Goal: cut to 2 buds total.



Easy choice. Stub is dead. Bye!



That was easy. Cut off at the base.



Where to trim the branch, though?
I see two buds...



And the cut is done. Not too close, not too far. (The part past the bud will die.)



Usually, there is at least one bud at the very base, so you could count that as one of the 2 buds you need to leave



Now here is the part you did not see.
THIS IS JUST ONE PRUNING CUT!



Sometimes the branches try to go on vacation in nearby trees.



Grapes on a fence— a bit of a mess



Here are two decision spots. Multiple shoots out of each spot.



The first choice has 3 options



Well, one option is kind of dead.



Now which one? Both are coming off a stub from last year.

These were the 2 buds left during the last prune.



I chose the one that came out more.
Now to choose the 2 buds again.



I went with the 2nd bud coming out towards the sun.



On to the second decision point



Choosing what to get rid of



The bigger picture: keep the older half?
Or go with the newer branch below?



The newer one is sometimes a good option.



Decision made to renew the branch with younger wood



Now that area is much more simple and open with one strong branch with some side shoots cut to 2 buds each



This is what it started as



What about pruning Grapes on an Arbor?



I tend to have a “trunk,” often made into 2 trunks, that go up and over, then prune more on top of the arbor



Here is that same vine from
inside the arbor



Established trunks on an arbor



Here you can see several trunks snaking up to then go across the top



Here are canes tied to the arbor top



How to tie a grape to an arbor without strangling it: Leave lots of room



Here is another example.



GRAPES! (big arbor) Strips of T Shirt to tie the canes to the 2x4 rafters.



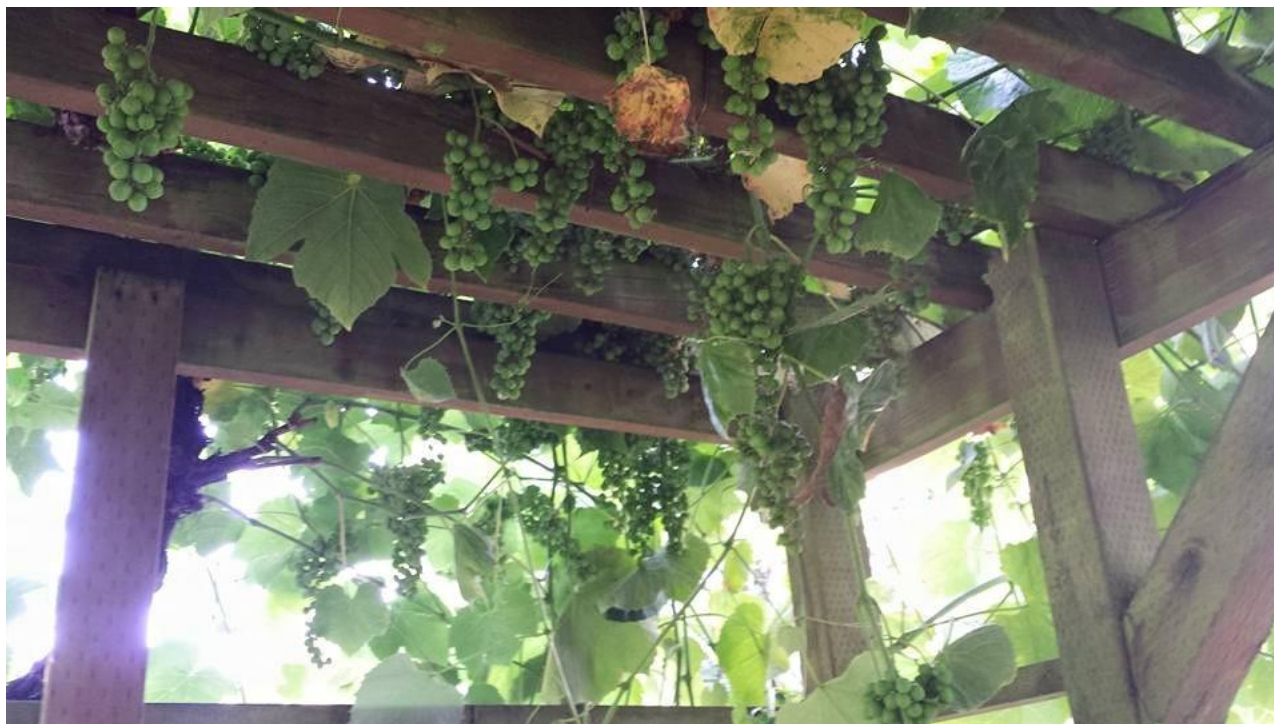
Cut old T-Shirts into soft ties



It can get pretty impressive!



This could be yours!




Maintance during the summer:

- ❑ Reducing the number of grape clusters can help ripening (TBH I never do this)
- ❑ Pulling a few leaves off around grape clusters can increase air circulation, help ripening, and reduce diseases
- ❑ Pruning the canes back instead of letting them grow to Tahiti is recommended
- ❑ Visit the Website: cowlitzcomg.com for MANY resources including a 17 page handout.

Common Diseases & Pests:

- Grape erineum mite
 - ▣ Caused by a mite
 - ▣ Looks bad,
 - ▣ Isn't really a problem

- Botrytis Bunch Rot 
 - ▣ Increase airflow
 - ▣ Harvest earlier rather than later
 - ▣ Avoid damage to clusters
 - ▣ Treat with fungicide
 - ▣ Remove old canes and fruit



Questions?

☐ Cowlitzcomg.com

☐ **Learn With us**

☐ **Fruits:**

☐ **CALENDAR:** <https://www.cowlitzcomg.com/public-events>

☐ **Look for Grapes**

☐ **Want to go to a class?**

☐ **CALENDAR:**

☐ <https://www.cowlitzcomg.com/public-events>

Resources

First –Last Frost Dates Washington:

<https://www.plantmaps.com/en/us/lf/state/washington/average-last-frost-dates-map>.

Growing Degree Days Website:

<http://www.greencastonline.com/growing-degree-days/home>

Washington State University. Growing Grapes in the Inland Northwest. Master Gardener Program. C053.

<https://s3.wp.wsu.edu/uploads/sites/2076/2021/06/C053-Growing-Grapes-in-the-INW-21.pdf>