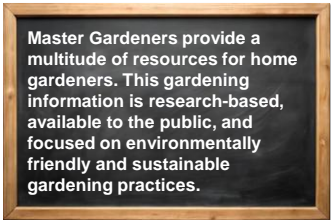


1

Notices



2

Tonight’s Agenda

- Cucurbits
- Introduction to plant family
 - Cucumbers
 - Summer Squash
 - Melons
 - Winter Squash
 - When Space is Limited
 - Pests & Diseases



3



4



5

Cucurbitaceae

- Latin for Gourds, which come in a huge range of shapes, sizes and uses
- Native to the Andes & Mesoamerica
- About 985 species in 95 genera

Photo credit: Territorial Seed Co.

6

The Cucurbits Mainly Grown in the PNW are Cucumbers, Summer & Winter Squashes



Cucumber

Zucchini – summer squash

Delicata – winter squash (with garlic)

Photo credits: Territorial Seed Co.

7

Cucurbit Growing Needs

All cucurbits have a few growing needs in common

They all like:

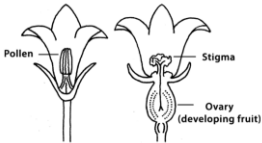
- Warmth
- Moisture
- Quick draining soil so they don't become waterlogged

8

The Cucurbit Family need insects to pollinate



Male flower Female flower



Male flower Female flower

<http://extension.msstate.edu/publications/publications/growing-pumpkins-for-the-home-garden>

9

Hand Pollinating
... when bees don't

- Remove male flower and expose stamen with pollen
- Leave as many pollen grains as possible



Photo credit: Territorial Seed Co.

10

Growing Cucurbits:
Cucumbers

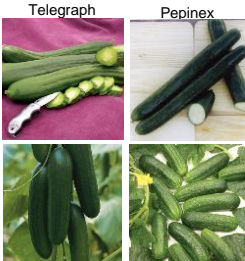


photo credit: Heidi McKibbin

11

Cucumbers (*Cucumis sativus*)

- Greenhouse**
- Telegraph Improved
 - Poniente
- Slicing**
- Picolino
 - Pepinex
 - Sweet Slice
- Pickling**
- Diamont



Picolino

Diamant

Photo credit: Territorial Seed Co.

12

Cucumber (*Cucumis sativa*)

Soil Temp for Germ.	Seed Depth	Days to Harvest	Thin Plants To	Distance Apart	Average Yield	Hill Prep
Minm. 55°F	1/4"	45 to 70	1 per hill	approx 3ft	Varies w/variety & culture	Good mix of compost and soil

- Direct seed late spring (row cover suggested) or plant in pots and move when soil temperature allows
- Easy to grow
- Full sun best
- Harvest before they reach full size to keep them coming
- Best grown up trellis or similar
- n.b. 'Hills' are mounds of enriched earth which allow water to drain easily & heat by the sun
 - Cucurbits do not like to sit in wet conditions

13

Recipes

Tzatziki sauce



Cucumber salad



Canning pickles



photo: [ball canning](#)

14



15

Summer Squashes (*Cucurbita* spp.)



Photo: Emily Castle

16

Summer Squash varieties
Cucurbita pepo



Black Beauty



Patty Pan Sunburst



Palermo Long White



Bush Baby



Yellow zucchini
(Cube of Butter)



Yellow Crookneck

17

Summer Squash (*Cucurbita pepo*)

Time to Plant	Seed Depth	Days to Harvest	Vine Spacing	Hill Spacing	Average Yield	Hill Prep.
After last major frost	1/4"	50-70 days	2 vines per hill	4' - 5'	10 -15 per vine	Good mix of soil & compost

- Best sown in spring
- Make hills free draining to encourage heating by sun
- Direct sow in late spring (suggest row cover)
- Start indoors 4 weeks before transplanting in late spring
- Harvest often for smaller fruit and better yield



18

Recipes

Fried zucchini blossoms



Photo Credit: Christina & Corinne

Stuffed zucchini



Photo Credit: Sue Kraemer

Zucchini fritters



Photo Credit: Loni and Laniya

Photo Credit: Sue Kraemer

19

Growing Cucurbits:
Melons



Photo credit: Gila Pearson

20

Melons (*Cucumis melo* & *Citrullus lanatus*)

Savor

- What do you want to eat?
 - Cantaloupe
 - Honeydew
 - Watermelon



- What beauty do you want to look at?
 - Orange Silverwave
 - Alvaro

Photo credit – Territorial Seed



21

Seed Selection

- You like the flavor and texture
- Has disease resistance
- Ripen in less than 80 days
- If more than one type, get different ripening times



22

Melons for Containers

- Cantaloupe
 - Minnesota Midget
- Watermelon
 - Sugar Baby Bush
 - Golden Midget



23

What I grew at BDG last year

ALVARO (F1)
65 days. A French Charentais type of melon with cantaloupe flavor. About 5 inches in diameter, ripen to an yellowish-tan, smooth skin with green striping. Creamsicle-orange flesh. Healthy plants set about 5-6 fruit each.

MINNESOTA MIDGET (OP)
65-70 days. An heirloom with mini cantaloupes - fruit 4-6 inches across with deep orange flesh.

SUGAR RUSH (F1)
65-70 days. bulky, 4-pounders offer enough sweet, orange flesh for several generous servings from slightly elongated, well-netted fruit. The disease-resistant plants produce high yields very early in the season. For best flavor, harvest when the melon's background loses its green color.

24

Western WA Melon Timeline

- by 5/10 - plant seeds in 4" pots
- by 6/1 – warm soil, cover with clear plastic
- by 6/15 - transplant starts
 - use plastic mulch
 - use row cover over seedlings
- by mid July – remove row cover when flowers appear
- by late July – first fruit set
- early to mid September – first fruits ripen

25

Potential Melon Problems

Diseases	Pests
Damping-off	Slug/snail
Powdery mildew	Brown marmorated stink bug
Fusarium wilt	Spider mites
Verticillium wilt	Squash bug

Consult WSU Hortsense to diagnose and treat

Cultural Problem – No female flowers
or poor pollination

26

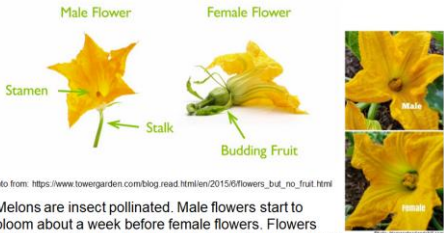


Photo from: https://www.towergarden.com/blog/read.html/en/2015/05/flowers_but_no_fruit.html

Melons are insect pollinated. Male flowers start to bloom about a week before female flowers. Flowers only bloom for **a few hours in the morning**. A fertilized female flower will take 10 - 12 days to produce fruits.

High temperature, high rainfall and/or excess nitrogen may inhibit formation of female flowers.

27



28

When to Harvest Melons

- Cantaloupe:
 - Harvest when fruit slips from the stem
- Honeydew & French Charentais
 - When leaf closest to the fruit turns brown or when melon color changes
- Watermelons
 - When the tendril closest to the fruit is dry and brown or when the bottom side of the fruit is yellow



29

S
a
v
o
r
!



30

Storing cantaloupe

- Most watermelon and honeydew melons do not continue to ripen once off the vine. Some varieties of honeydew will
- Cantaloupe can be harvested a little bit early (before full slip) and left to ripen on the kitchen counter
- Store at 36 to 41 °F, cantaloupes can last for up to 3 weeks.



Photo credit: <https://www.hammonsgrocery.com/product/great-grapes-melon-fruit-tray/>

31

Growing Cucurbits:
Winter Squash



32

Cucurbita genus

All Squashes (including Summer Squash) are in the Cucurbita genus
This includes pumpkins and some gourds

Main species:

Pepo: (Latin for melon)

Varieties: Acorn Squash, Delicata, Summer Squash (including zucchini), some specialty pumpkins
Originated in Northern Mexico and Southeast United States

Maxima: (Latin for Largest)

Varieties: Buttercup, hubbard, red kuri, kabocha, Giant Pumpkins
Stem will look like a dried rope.
Native to Central and South America
Maximas can be more susceptible to pests (vine borers, squash bugs and cucumber beetles.)

Moschata: (Latin for musky)

Varieties: Butternut, honeynut and most pumpkins
Native to Central and South America

33

What's the difference?
Pumpkins and Winter Squash
Shape, Color, Size & Use

Pumpkin Species



Cucurbita maxima



Cucurbita pepo



Cucurbita moschata

Squash Species



Cucurbita maxima



Cucurbita pepo



Cucurbita moschata

34

Cucurbita pepo

(Latin for melon)



Beppo Pumpkin



Sugar Pie Pumpkin



Reno (acorn) Squash



Delicata Squash



Spaghetti Squash



Sweet Potato Squash

35

Cucurbita maxima

(Latin for Largest)



Amish Pie Pumpkin



Cinderella Pumpkin



Banana Squash



Hubbard Squash



Buttercup Squash



Sweet Meat Squash

36

Cucurbita moschata
(Latin for musky)



Fairytale Pumpkin



Butternut Squash



Butterkin Squash

37

Winter Squash and Pumpkins (*Cucurbita* species)

Soil Temp for Germ.	Seed Depth	Days to Emergence	Thin Plants To	Row Spacing	Seed Life	Fertilizer Needs
65-85°F	1 - 1 1/2"	5-10	1-2/hill	3-6'	3-4 years	Medium to high

- Needs fertile well drained soil
- Warm season crop!
- Monoecious: need bees and insects for pollination!
- Start indoors 3-4 weeks before transplanting (careful when transplant, roots don't like to be disturbed)
- Direct sow when soil 65°F
- Use floating row cover



38

Harvesting Winter Squash and Pumpkins



Photo Credits: dynamark.com

- Leave on vine until mature; rinds should be firm
- Cut stems leaving 2-4 inches and wash
- Move to warm dry area to cure (time depends on variety)
- Store at 50-60°F with good air circulation

39

Curing and Storage Varies!

Squash	Curing Time	Storage
<i>Cucurbita pepo</i>	not required	2-3 months
<i>Cucurbita maxima</i>	10-14 days	4-6 months
<i>Cucurbita moschata</i>	10-14 days	4-6 months



40

Favorite Recipes

Squash soup



Squash, onion, apples, carrots, broth, and spices (curry - Indian or Thai)

Pumpkin pie



Pumpkin puree, eggs, evaporated milk, sugar, and spices in butter crust



Roasted Squash

Squash (can be summer or winter), salt, pepper and oil

41

Growing Cucurbits: When Space is Limited



42

Container Options

- Size
 - At least 5 gallons
- Features to consider
 - Self watering
- Reservoir, wicking fabric, fill port
 - Wheeled
 - Trellised



43

Use Vertical Space

- Increases crop yields by 2 to 3 times — better air flow & disease control
- Less damage to vines during harvest; more thorough harvesting
- Fruit hangs vertically and ripens properly; can discolor on ground
- Prevents slugs from taking a bite



44

Trellises

- Vines will require some 'training'
- Size
 - 4"x 4" or larger mesh (wire, plastic, fabric)
 - fruits may need support
 - 3' x 5' structure area
- Features
 - Secure to surface/ground/container
 - Slightly angle supporting mesh
 - Sturdy enough for plant load & wind load
 - Additional support for heavier fruits

Is it sturdy enough?
Is it durable?
Is it attractive (or at least not ugly)?



photo credit Territorial Seed

45

Trellis - Buy or Build

- Buy – multiple vendors
- Build - [All New Square Foot Gardening Third Edition](#), includes step-by-step instructions (pages 98-105) to build three kinds of trellises.

46



47

Integrated Pest Management (IPM)

- **Prevent** problems before they start
- **Monitor** with careful observation
- **Identify** pests
- **Control** with mechanical and biological practices first (not eradicate)



Photo Credit: Wikipedia



Photo Credit: Sue Kramler

48

Squash Bugs

Affected Crops: squash, melons, and pumpkins

Prevention and Control

- Hand-pick and destroy eggs, nymphs, and adults
- Clean up debris



49

Stink Bugs

Affected Crops: all members of the family

Prevention and Control

- Hand-pick and destroy eggs, nymphs, and adults
- Natural enemies: chickens, praying mantis, and others
- Row covers



50

Spotted and Striped Cucumber Beetle

Affected Crops: all members of the family

Prevention and Control

- Pick and kill individual beetles
- Attract beneficial insects
- Row covers



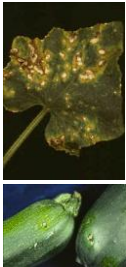
51

Angular Leaf Spot

Affected Crops: all members of the family

Prevention and Control

- Plant disease-free seed
- Rotate crops
- Plant resistant varieties
- Avoid over-watering



52

Powdery Mildew

Affected Crops: all members of the family

Prevention and Control

- Remove affected leaves
- Rotate crops
- Space plantings for air circulation
- Don't water from above
- **Prevention:** spray with 10% milk solution



53

Cucumber Mosaic Virus

Affected Crops: all members of the family

Prevention and Control

- Plant resistant varieties
- Control aphids and beetles
- Control weeds
- Remove infected plants



54

Verticillium Wilt

Affected Crops: all members of the family

Prevention and Control

- Rotate crops
- Plant when soil is warm
- Clean up debris



55

Resources

- Home Vegetable Gardening in Washington, #EM057E
- Growing Cucumbers in Home Gardens, #FS096E
- Growing Squash in Home Gardens, #FS087E
- **HortSense:** <http://hortsense.cahnrs.wsu.edu/Search/MainMenu/WithFactSheet.aspx?CategoryId=5&PlantDefId=55>
- **Territorial Seeds:** www.territorialseed.com



56

Questions?



57

Seed Saving

Be careful if you save seeds!

- Cross-pollination can happen between plants within in a mile of each other
 - Hand pollination and sealing helps to prevent insects/wind from bringing in outside pollen
 - Generally, stick to one variety of any species
 - Seed maturity:
 - Color change
 - Hard Rind
 - Stern Dry
 - Winter squash seeds are mature when normally harvested
- Stored in cool dry conditions, seed can be viable for 6 years



58



Upcoming Presentations



Growing Groceries
2025 Warm Season Series
Wednesdays 7:00pm-8:30pm



Date	Class
Wed, April 16	Growing the 'Other' Edible Nightshades: Peppers, Tomatillos, Eggplant
Wed, April 30	Roots and Rare Fruits
Wed, May 14	Grow Cukes, Squash and Melons- Big and Small
Wed, May 28th	The Nutritional Powerhouse: Corn and Beans (legumes)
Wed, June 11	Summer Starts for Fall and Early Spring Harvests
Wed, June 25	Caring for Community: Master Gardener Demonstration Gardens

PNW Garden Savvy
2025 Series 2
Saturdays 9:30am-10:30am



Date	Class
Sat, April 12	Gardening with Children
Sat, April 26	Plant it Where the Sun Don't Shine
Sat, May 3	Protecting Our Unsung Heroes, Our Pollinators
Sat, May 17	Understanding King County Soils for Better Gardening
Sat, May 31	Rain Gardens
Sat, June 7	Deer Resistant Gardening

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



59



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

60

Thank you for the support!



Is brought to you by



WASHINGTON STATE UNIVERSITY
EXTENSION

King County Master Gardener Program

<https://extension.wsu.edu/king/gardening>

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



Master Gardener Foundation of King County

<http://www.mgfk.org>

- Fundraising for these programs

More information about growing groceries:

<https://kingcounty.mastergardenerfoundation.org/education/gg/>
