



Year Round Gardening

Hosted by WCGT-Permaculture and
Gardening Group

Presented by Alec LePoidevin, owner of Fresh
Roots LLC-Edible Landscaping and Gardening

INTRODUCTION

- WCGT Permaculture and Gardening Group
- Me-Alec LePoidevin
 - Master Gardener
 - Experienced Landscaper and Gardener
- My business-Fresh Roots LLC
 - Garden Design, Installation, and Maintenance
 - Edible Landscaping



WHAT'S THIS ALL ABOUT?

- Fall/Winter garden tasks
- Extending our growing season
 - Structures
 - Techniques
- Varieties of plants for cold seasons
- Benefits of cold season gardening
- Resources



Fall/Winter Garden Tasks

- Season transitions
- Tools
- Organization/Planning
- Seed catalogues



Fall Garden Preparation

- Breaking down the garden
 - Remove plants
 - Compost
- Soil amending
 - Test soil
 - Add nutrients
- Saving Seeds



Organization and Planning



- Get ready for each planting step with a plan
- First frost for SE Wisconsin
 - Early to Mid October
- Last frost for SE Wisconsin
 - End of April to Early May
- Select plants
 - Catalogues=fun times yay!

Garden Tool Care

- Clean tools
 - Remove dirt, sap, etc with steel wool or equivalent
 - Use a 70% alcohol solution
- Sharpen
 - Professional
 - File or grind to make edge
- Hoses and watering cans empty and dry
- Store properly
 - Off ground
 - Dry place



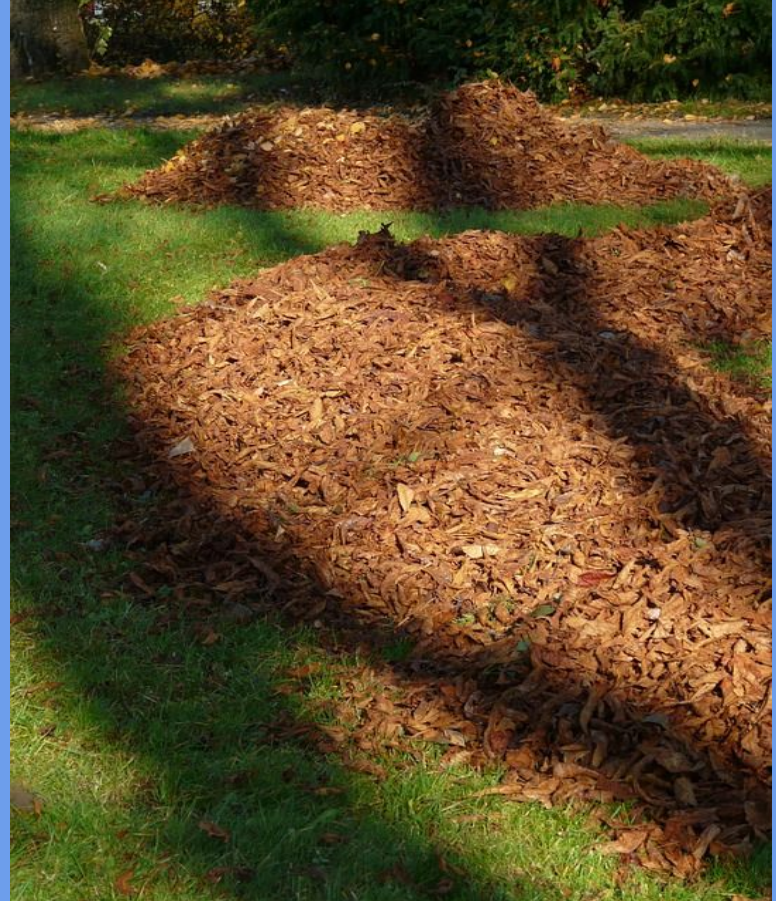
SEASON EXTENDING STRUCTURES

- Cold Frames
- Hoop Houses
- Green Houses
- Row Covers
- Cloches
- Natural Covers



Natural Materials

- Leaves
 - Cover beds that will sit empty
 - Adds organic matter to soil
 - Mulch leaves to break them down
- Hay/Straw
 - Make sure it is seed free
- Wood Chips
 - Cover beds to protect soil
 - Place around perennial plants to protect against deep freezes
- Cover Crops
 - Whole other presentation!
 - “Green Manure”
 - Supplies nutrients to soil
 - Pulls nutrients from lower down
 - Protects soil in “empty” beds



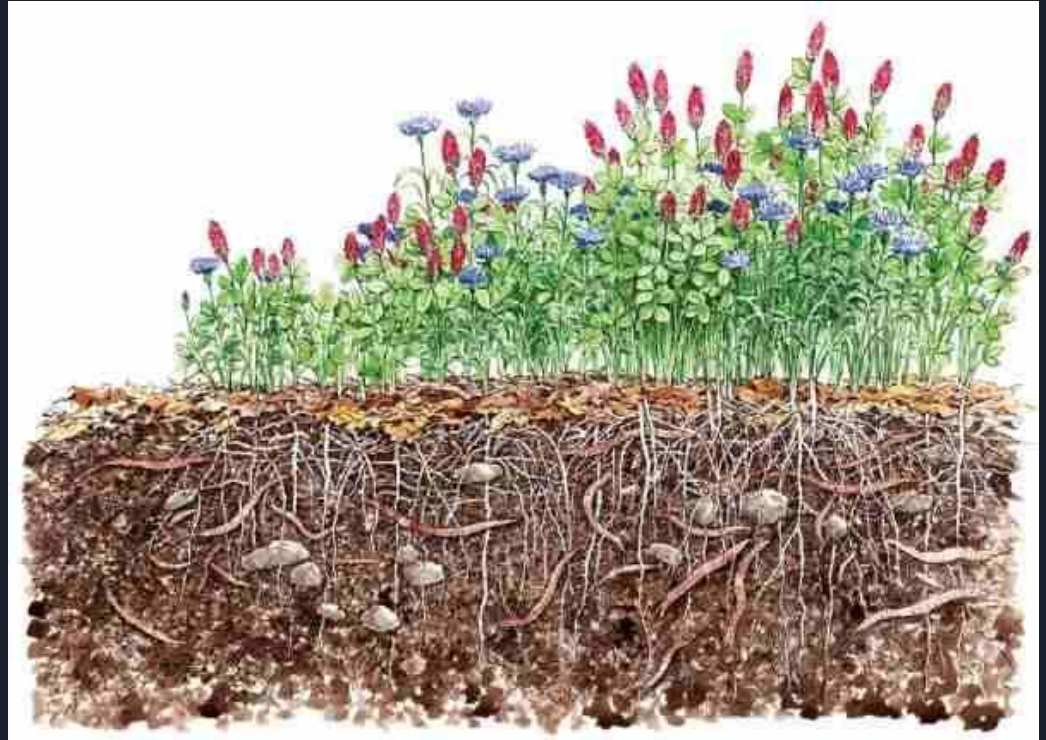
Straw Mulch in hoop house



Wood Chips around plants

Cover Crops cover feed soil!

- Buckwheat
- Winter Rye- quick, seed in fall
- Alfalfa-nitrogen fixer
- Garden Peas- nitrogen fixer, provide food too!
- DO NOT let go to seed
- Can be turned under soil to add organic matter



Cloches

- Cloche means “Bell” in French
- AKA Hot Cap
- Stores up heat during day and radiates heat at night
- Need to vent
- Can be made from glass or plastic
- Good way to reuse waste products





Multi sided Cloche



Fancy Pyramid Cloche

Classic Bell Cloche





Large water jug



Plastic container



Milk Jug



Water Bottle



“Water Cloche”



- Plastic or glass
- Holds water between two surfaces
- Uses water to store heat then radiates the heat to plants

Row Covers

- Light fabric that can rest on most plants
- Protects against insects, some animals
- Can be used with hoop houses
- Helps to trap varying amounts of heat while letting light in
- Use to protect against light frost in early spring or fall
- Carrots, Beets, Turnips, Leeks
- Cover low plants with leaf or straw mulch and row cover to store in beds for winter harvest
- Range in thickness
 - Light- insect and animal cover
 - Medium- 70% light, cooler temps
 - Heavy- “frost blankets”, 30-50% light, winter protection



Medium Cover



Light Cover



Heavy Cover



Hoop Houses

- Strong “skeleton”
 - PVC pipe
 - Metal wire or pipe
- Covered with plastic
 - Row cover
 - Heavy plastic, painters plastic
- Space hoops 3-4 feet
- Secure the sides
- Plan well-allow access for harvest
- Leeks, Scallions, Mache, Arugula, Kale, Collards






Hoop house secured with
sandbags



Plastic tubing used as structure



Commercial hoop house operation



Large hoop house

Hoop House in a Greenhouse



Cold Frames



- Create Micro Climate
- Clear top to allow light in
 - Old windows, Shower doors, Polycarbonate, Plexiglass
 - CAUTION glass can break if not careful
- Sturdy sides to hold shape
 - Wood, Cinder blocks, Straw bales, etc
- Good for low growing crops
 - Beets, Kale, Endive, Spinach, Arugula, Mustard Greens
- Needs to have some sort of ventilation if temps reach over 40

“Mini Greenhouse” cold frame



Wood sided cold frame



In ground cold frame

Mike and Carolyn Paik's Cold Frame



Green Houses

- The ultimate winter growing option!!
- Provides a controlled environment for all types of plants
- Start transplants
- Keep fruit varieties alive
- Can be large or small spaces
- Keep plants safe from pests
- Fun winter hangout to recharge!
- NO natural pest controls-plan accordingly





Medium Greenhouse Kit

Large greenhouse for home





DIY greenhouse



Greenhouse "Tent" Kit

Super Fancy Professional Greenhouse

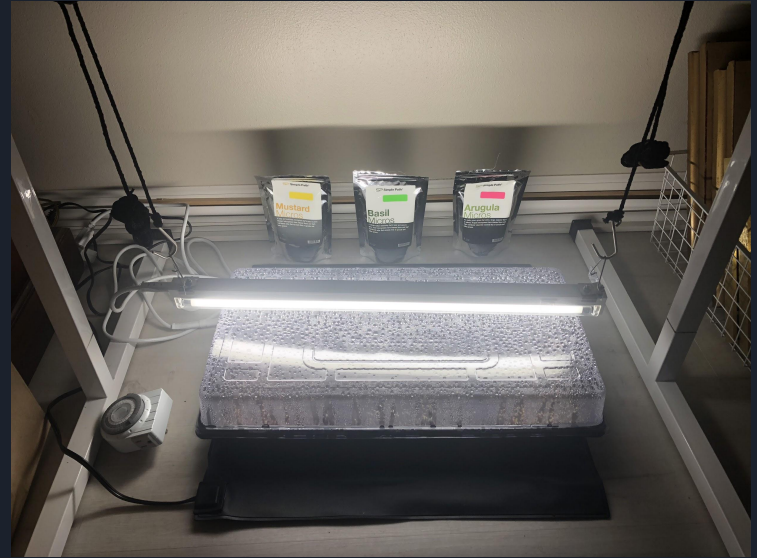


What can we do inside to extend our season?

- Seed Starting
 - Keep plants started for each season
 - Use as transplants
 - Harden off
- Microgreens
 - Quick and easy to grow
 - “Baby” plants
 - Packed with flavor and nutrition
- Herbs
 - Keep in sunny spot of kitchen for cooking
 - Bring outside plants indoors for winter



Seed Starting



Microgreens

The FUN part!!!

- What plants can we grow in the colder times of year?
- What do we need to be aware of with growing in Fall/Winter/Early Spring



Leafy or Salad Greens

- **ARUGULA**- Sylvestra, Tuscan
- **LETTUCE**-Arctic King Butterhead, Winter Density, Four Seasons Butterhead, Winter Marvel, Red Salad Bowl, Slobolt
 - Red leafed lettuce is considered more cold tolerant
- **COLLARDS**-Champion, Georgia
- **ENDIVE**-Broadleaf Batavian or Batavian Full Heart, Green Curled Ruffec
- **KALE**-Scotch Kale (shorter, good for cold frame), Siberian Kale (tall, 3-4ft), Lacinato (dinosaur kale), Red Russian, White Russian
 - Blue-green foliage considered more cold tolerant
- **MACHE**- Vit, Verte de Cambrai
- **MUSTARD**- Giant Red, Green Wave, Southern Giant Curled
- **MIZUNA**- Kyona, Purple Mizuna
- **SPINACH**- Winter Giant, Winter Bloomsdale



Tuscan Arugula



Lacinato or Dinosaur Kale



Arctic King Butterhead
Lettuce

Vit Mache





Purple Mizuna



Winter Giant Spinach



Argentata Swiss Chard

Root Vegetables

- **BEETS**- Bull's Blood, Detroit Dark Red (beets need cold protection)
- **CARROTS**- Atomic Red, Napoli (tops die back, cover with mulch)
- **PARSNIPS**- Hollow Crown, Javelin
- **RADISHES**- Miyashige, Nero Tondo



Bull's Blood Beet



Atomic Red Carrot



Brassicas

BROCCOLI- Arcadia, Packman,
Marathon

BRUSSEL SPROUTS- Bubbles, Diablo,
Jade Cross

CAULIFLOWER- Snow Crown





What Do Plants Need in the Colder Seasons?

- Plants still need sunlight!
 - Use the right structure
 - Allow enough light
- Water
 - Due to the colder temps the growth slows down so there is no need to water
- Nutrients
 - Properly amending soil through the year will keep your plants strong in the later months
- Air flow
 - Structures that are closed will need to be vented occasionally



Timing is Key!

- Check packets or catalogue for growing patterns
 - Count backwards from first frost
- Plant indoors and transplant outside to structures or garden
 - Plants need to be hardened off in COLD and HEAT
- Remember that growth slows down as the daylight gets less in fall, plan accordingly!
- Be sure your structures are in place at the right time
- Let winter harvest crops grow to about 90% maturity before the frost hits

BENEFITS OF YEAR ROUND GARDENING

- Cool temps mean less pest and disease issues
- Less watering
- Slower growth
 - More time to get out to harvest
 - Less weeds
- Allows for healthy eating all year long
- Get an early start on year
- Extend later in season
- More plants=better environment
- FUN!!



RESOURCES

- UW Wisconsin Extension <https://hort.uwex.edu/>
- UMN Extension <https://extension.umn.edu/>
- The Year Round Vegetable Gardener by Niki Jabbour
<http://www.nikijabbour.com/>
- Joe Lamp'l from “Growing a Greener World” and “The Joe Gardener Show” <https://joegardener.com/>
- And of course The Waukesha County Green Team
<https://www.waukeshacountygreenteam.org/>



CONTACT INFORMATION

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