2018 Spring Webinar Series
2 p.m. CST

EXTENDING KNOWLEDGE >> CHANGING LIVES

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Using Scarce Resources: Square Foot Gardening and Raised Beds

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Square Foot Gardening

- Grow 100% of harvest in 20% of space
- 2% of work
- 4’X4’ example
- Why 4’X4’?
- How do you figure out the spacing?
- Why the spacing?

- http://www.squarefootgardening.com/
Square Foot Gardening
Introduction

• Seeds
• Containers
• Potting medium
• Fertilizer
• Light
• Watering
Seeds

• Hybrid
  – Vigor
    – Stronger plants
    – Disease resistant
    – Higher yield

• Open Pollinated/Heirloom
  – Different flavors
  – Different colors
To buy seeds or not

- If done right save money.
- If done wrong a season of growing an inferior plant.
Heirloom
Hybrid
Which one is right
Cute, but...
Drainage, but...
Water

• Drainage
  – Holes
• Water through
  – Why
Good Drainage
Coconut Core
Compressed Peat-moss
Commercial
Containers
Plantable Containers
Growing in Containers
Growing in Containers
Same rules as a container

- Good Drainage
- Appropriate Size
- The Right Soil
- Appropriate Material for the bed
Growing in a Raised Bed
Raised beds
What can beds be made of?

- Cedar, Pine, Pressure Treated Wood
- Metal/plastic (animal or food grade approved), Concrete, Stone
What to not use:

- Chemical treated/contaminated wood
- Railroad ties
Soil Media Raised Bed

• Purchasing
  – Expensive
  – Ready to use
  – Clean
Soil Media Raised Bed

• Making
  – What do you put in it?
    • All top Soil
    • Or…
  – What do you avoid?
    • Bones, meat, cheese…attracts rodents
    • Diseased plant material, weeds, Solanacea
    • Chemical treated grassclippings/other
    • Wood chips
Soil Media

• What can be in it?
• N  P  K
  – Other nutrients
• Sphagnum Peat Moss, perlite (volcanic rock)
• Coconut Core
• Soil
Several other things…
Fertilizer

• Mix usually formulated for you
• Apply according to directions
• Slow release or not slow release
• Organic vs. Commercial
Fertilizer
Fertilizer
Fertilizer

Guaranteed Analysis

Total Nitrogen (N) : 0.13%
Nitrate Nitrogen (N) : 0.04%
Available Phosphorus (P2O5) : 0.19%
Total Potassium (K2O) : 0.21%

Ingredients:
- This product is a slow analysis fertilizer, not recommended for use as a fertilizer product.
- The nitrogen, phosphorus, and potassium levels are based on the previous analysis of fertilizer products.
- The nitrogen is derived from a polymer-coated, ammonium nitrate, and the phosphorus is derived from a phosphorus pentoxide, potassium nitrate, calcium phosphate, and potassium polyphosphate and potassium sulfate.
- This product is recommended for use on all types of crops, including turfgrass, vegetables, and ornamentals.

Also Contains Non-Plant Food Ingredient:
- Beneficial Substance: 0.0001% silicon dioxide (SiO2) from calcium silicate.
- Purpose Statement: May improve resistance to wilting.

Useful Hints:
- Use bag after use to keep the mix moist.
Soil Media

- Unlimited amount of recipes
  - Check with someone who actually used it
  - What was good
  - What was bad
Light
Light

• Sun
  – Complete color spectrum
• To grow most plants successfully
  – 8 hours sunlight
• Without adequate sunlight
  – Yield diminished
  – Plant death
Light
Movable light source
Seedling
Fertilizer and Other

• Potting mix moist
  – during germination

• Drain excess water
  – and discard from trays

• Do not fertilize until true leaves form
True Leaves
Transplanting

• Hardening Off
  – Approximately 1 week
  – Shade
  – Time
  – Well watered
  – Don’t let dry out!!!

• Move to raised bed!

• Keep apart from other plants distance package says
Transplant or not?
Other publications to look at…

- https://www.ndsu.edu/fileadmin/4h/Plants/GCC193.pdf
Questions?

10 https://grist.files.wordpress.com/2009/08/soil_2.jpg

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1-7, 9, 11, 12, 13 Randy Nelson, Extension Educator, Clay County, University of Minnesota Extension

14 https://upload.wikimedia.org/wikipedia/commons/thumb/7/7c/SquareFootGardening.gif/145px-SquareFootGardening.gif
Questions?
www.ag.ndsu.edu/fieldtofork