

Webinar: The Magic of Seeds

Introduction	
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Rutgers Master Gardeners website	https://mgofmc.org/
Karen Prager, presenter	kprager@gmail.com
I. What's a seed	
	https://extension.psu.edu/understanding-seeds-and-seedling-biology
a. What a seed needs to sprout	https://extension.psu.edu/seed-and-seedling-biology
b. Why grow from seed?	https://farminence.com/5-benefits-of-starting-seeds-indoors/
II. You & Your Garden	
	https://extension.umn.edu/planting-and-growing-guides/starting-seeds-indoors
a. What do you want to plant?	https://www.planetnatural.com/garden-planning/
b. Where? Know your Garden Spot?	https://www.diynetwork.com/how-to/outdoors/gardening/selecting-the-best-location-for-a-garden
c. Veggies need lots of light	https://extension.umn.edu/how/planting-and-growing-guides
d. Flowers need lots of light, too	https://www.dummies.com/home-garden/gardening/flower-gardening/how-much-light-do-plants-need/
e. Know your soil! Soil testing	https://njaes.rutgers.edu/fs797/
f. Set up your flower garden	https://njaes.rutgers.edu/home-lawn-garden/what-to-plant.php
g. Set up your vegetable garden	https://extension.umd.edu/hgic/topics/how-start-vegetable-garden
III. Step 1: Getting seeds. Seed Catalogues	
	https://awaytogarden.com/resources - scroll to seeds https://njaes.rutgers.edu/FS1163/ https://awaytogarden.com/unusual-seeds-with-nate-kleinman-of-experimental-farm-network/ https://exchange.seedsavers.org

a. Types of seeds – terminology	https://www.gardeningchannel.com/open-pollinated-vs-hybrid-vs-heirloom-seeds/
b. Variety & selection	https://awaytogarden.com/growing-a-better-tomato-seed-to-harvest/
c. Heed the packet	https://extension.unl.edu/statewide/fillmore/Seeds.pdf
d. Know your Hardiness zone	https://garden.org/nga/zipzone/
IV. Step 2: Starting seeds	
a. Timing is essential	https://mgofmc.org/jumpstarting-spring-starting-seeds-indoors/ https://www.gardeningknowhow.com/garden-how-to/gardening-by-zone/zone-7/zone-7-seed-planting.htm https://extension.umd.edu/hgic/topics/starting-seeds-indoors
b. Germination test	https://extension.illinois.edu/blogs/rhonda-ferrees-ilriverhort/2017-02-03-test-seed-viability
c. When to start seeds	https://awaytogarden.com/when-to-start-seeds-calculator/ & https://njaes.rutgers.edu/fs678/
d. Scarification	https://www.thespruce.com/stratification-seeds-into-thinking-its-winter-1403100
e. Stratification	https://www.gardeningknowhow.com/garden-how-to/propagation/seeds/seed-stratification.htm
V. Step 3: Essentials for Indoor Planting	
a. Seed Starter Essentials	https://thereidhomestead.com/seed-starting-101-equipment/
i. Seed starter choices	https://extension.umd.edu/hgic/topics/containers-and-growing-medium-seed-starting
ii. Soil blocks	https://extension.psu.edu/programs/master-gardener/counties/susquehanna/penn-state-master-gardener-articles/making-soil-blocks
b. Seed starting mix formula	https://awaytogarden.com/seed-starting-basics/
c. Seeding	https://awaytogarden.com/when-to-start-seeds-calculator/ https://awaytogarden.com/how-to-start-seeds-18-confidence-building-tips/
VI. Step 4: Starting Seeds Indoors	
	https://njaes.rutgers.edu/fs787/
a. Care before Germination	https://extension.umd.edu/hgic/topics/seedling-care
b. Florescent lights over Southern exposure	https://awaytogarden.com/shopping-for-seed-starting-grow-lights-with-leslie-halleck/
c. Low light give leggy seedlings	https://www.thespruce.com/preventing-your-seedlings-from-getting-leggy-2539979
d. Pricking out seedlings	https://www.growveg.com/guides/the-right-way-to-prick-out-seedlings/

e. Damping off	https://extension.umn.edu/solve-problem/how-prevent-seedling-damping
f. Prevent damping off	
VII. Step 5: On a Roll: Germinating	https://hortnews.extension.iastate.edu/2000/2-25-2000/annflowgerm.html http://www.growgreatvegetables.com/plantinggrowing/germination/
a. Seeds that need light to Germinate	https://www.thespruce.com/seeds-that-need-light-for-good-germination-1403091 https://www.saps.org.uk/saps-associates/browse-q-and-a/659-why-do-some-seeds-germinate-only-in-the-dark
b. Care after Germinating	https://gardeningproductsreview.com/seed-starting-germination/
c. Alternatives	https://extension.umaine.edu/gardening/manual/propagation/plant-propagation/ This also has a great summary of seeds!
VIII. Step 6: Planting	
a. Hardening off	https://extension.psu.edu/hardening-transplants
b. Transplanting seedlings	https://bangordailynews.com/2019/04/29/news/state/how-to-transplant-seedlings-and-keep-them-healthy-and-strong/
IX. Final Steps	
a. Hardiness zone	https://www.thespruce.com/planting-zones-usda-plant-hardiness-maps-2131130
b. Succession planting	https://extension.umd.edu/hgic/topics/succession-planting-vegetables
c. Direct sow	https://www.burpee.com/gardenadvicecenter/areas-of-interest/flower-gardening/direct-sow-seeds/article10009.html - Burpee is commercial
d. Culinary Herbs	https://www.gardeningknowhow.com/garden-how-to/gardening-by-zone/zone-7/zone-7-herb-plants.htm
e. Annual flowers	Annuals that attract pollinators: https://extension.umn.edu/flowers-pollinators/annual-flowers-pollinators Annuals that add color: https://awaytogarden.com/annual-flowers-and-foliage-to-add-seasonal-color-with-untermyer-gardens/ Annuals for dried flowers: https://awaytogarden.com/flowers-for-drying-which-ones-and-how-to-with-jenny-elliott/
f. Perennial flowers	Flowers for landscapes (also annuals) https://extension.umn.edu/find-plants/flowers https://extension.psu.edu/care-and-maintenance-of-perennials
g. Grasses	Grasses for shade: https://awaytogarden.com/chasmanthium-a-native-grass-for-shade/ https://awaytogarden.com/turning-lawns-into-meadows-with-owen-wormser/

h. Saving Fall Seeds	https://modernfarmer.com/2018/07/seed-saving-101-10-things-to-know-if-you-want-to-start-saving-seeds/ & https://www.seedsavers.org/how-to-save-seeds https://awaytogarden.com/saving-and-sowing-seed-of-biennials-annuals-and-more-with-ken-druse/
X. Resources	
Books:	
	<p><i>Starting Seeds: How to Grow Healthy, Productive Vegetables, Herbs, and Flowers from Seed</i>, Barbara Ellis. Storey, 2012.</p> <p><i>Rodale's Basic Organic Gardening: A Beginner's Guide to Starting a Healthy Garden</i>, Deborah L. Martin, Rodale, 2014</p> <p><i>Starting from Seed</i>, Fine Gardening Magazine. Volume 1, 2010,</p> <p><i>The New Seed Starter's Handbook</i>, Nancy Bubel, Rodale, 1988</p> <p><i>The Secrets of Plant Propagation: Starting your own Flowers, Vegetables, Fruits, Berries, Shrubs, Trees and Houseplants</i>, Lewis Hill. Storey, 1985.</p> <p><i>The Maryland Master Gardener Handbook</i>, Jeanine Smetana, ed., University of Maryland Extension, 2012</p>
Presentations:	
	<p>Margaret Pickoff & Michael Gliddon: "Veggie Basics" https://rutgers.zoom.us/rec/play/9zEJlQw4j-MTHInK6fv_iwYL5FTYlhhvpANEMhS1j_sY95pv1gZ8gCnBPYn2U8MLGkpvtkObWpsJzHBy.UvLxXMI9ImuFmWAG</p> <p>Passcode: Garden*2021</p>
	Marjorie Steinberg: "Plants from Seeds" – not available
	Joe Lamp'I; "Seed Basics and Beyond" – not available
Fact Sheets:	
	Rutgers FS 787 "Starting Vegetable Seeds Indoors," Peter Nitzsche & Steve Reiners: https://njaes.rutgers.edu/fs787/
	MGofMC FS115 "Vegetable Gardening," BJ Bromley: https://mgofmc.org/docs/VegGardBasics.pdf