



## Gardening from the Ground Up

### NE Indiana Tips & Tricks

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*The Gardening from the Ground Up class is for the person newer to gardening or who ends up with more brown than green by the end of the season!*

### Tools

Lightweight shovel

Garden gloves

Generally use the largest containers (with drain holes) or grow bags you can afford

Hand pruners

Hand trowel and hand rake; optional: hoe for weeding, pitch fork and rake for mulching large areas

Cart or 2-wheeled wheelbarrow to transport supplies for larger gardens

What are your favorites?

**In Indiana, call 811 to have your utility lines marked before you dig and as you are planning your garden areas. Check your local utilities for the number to call in other states.**

**Soil: You're only as good as your soil!**

Soil demonstration: Sand/silt/clay; ph; compost; fertilizer

### Raised Bed Tour

Planters: Rocks, empty plastic bottles with caps on, or pot shards in bottom for drainage. Pre-moisten potting soil mix (with vermiculite or soil moisture crystals). No garden soil or compost as it will make the soil too compacted, hard for roots to grow!

Raised beds: Black topsoil and peat mixture (can be mixed with vermiculite or coconut coir in place of peat). Mix top layer with balanced fertilizer and top with compost if desired. Need drainage so no regular garden soil. Search "soil calculator" online for how much to use. Delivery of cubic yards of your soil mix is generally more cost-effective than bagged products.

Plots: Consider testing your soil *before* beginning or buying anything. We largely have very alkaline soil here that needs much help (compost, sulfur, aluminum sulfate, peat, and gypsum all

help lower pH) before planting in the ground! 2 cups of soil tested at Ag Plus or Purdue Extension, \$25/20. Suggest 3-in-1 or similar soil mix that contains compost. Kill or remove all grass & weeds before planting. Use only composted never fresh manure; *no dog or cat waste*. Raw kitchen scraps can leach nitrogen from soil when planted in garden beds before composted.

Consider starting a compost pile of your own: 2/3 brown material (leaves, sticks, shredded brown paper bags) and 1/3 chopped raw veggie, fruit, eggshell scraps without seeds. Turn at least weekly, crumbly not wet, and protect from critters with fencing. No fireplace ash or lime if soil is alkaline. Ideal is 6-7 for most vegetables, flowers, fruit (except blue and blackberries), bushes, and trees. Always check first!

## **Fertilizer**

Balanced slow-release fertilizer for initial plantings. Optional: Biotone for new plantings. Balanced/lower first number for edibles and flowers in N-P-K ratings (nitrogen-phosphorus-potassium); higher middle number for tomatoes & asparagus.

Slow-release types generally applied 2x per growing season; liquid fertilizer every 1-2 weeks. Always check instructions on product labels. Fertilize hanging baskets weekly and re-pot into larger container when they are drying out too fast or "root-bound."

Fertilize bushes and trees at "drip line."

Note which plants are acid-loving and add sulfur to soil amendments; gypsum adds calcium often needed for tomatoes. Compost is virtually always helpful in building your soil but you still need to add fertilizer periodically. Side-dress veggie and fruit rows with fertilizer.

## **Plants: Right plant, right place**

*Sun exposure:* 6+ hours of sun is considered "full sun" but watch changes over the daytime.

*Seed-starting:* dedicate some time to research heat mats, grow lights, seed-starting soil mix, pre-soaking select seeds, hardening-off and transplanting for best success. See guide in Files of WRCA Gardening Group on Facebook for when to sow seeds and planting timetable.

*Direct-sow:* Some plants do better direct-sown into the ground/don't like roots disturbed such as radishes, corn, lettuce, cucumbers. Follow package directions especially for soil-temp and spacing guidelines. Don't be afraid to thin your plants such as carrots, radishes, and lettuce! Planting tomatoes and peppers too early stunts their growth!

*Plant starts:* Local nurseries tend to have plants without pesticides such as neonicotinoids that can kill bees. Mix balanced fertilizer into soil (and optional Biotone in plant hole) at proper depth & spacing. Pre-moisten soil of pots before planting. Do finger test to know when to water each week. Consider inter-planting herbs and flowers in edible gardens for pollination and pest control.

All gardens can benefit from adding native plants. They attract pollinators and may deter pests, help cultivate, filter, and hold the soil in place; and generally are hardier, requiring less water once established. Rain gardens specifically help manage and filter water runoff as well. See Riverview Nursery and Arbor Farms locally plus the references in Files of WRCA Gardening Group on Facebook for some ideas.

Except for some bushes, trees, and cool season veggies, put most plants into the ground after our 6a last frost date of May 1st. In NE Indiana, select plants hardy to Zone 5b or lower and watch the weather before-and-after planting! Use zone 6a plants in protected areas. Planting trees, re-seeding and treating lawns, and dividing plants early in the fall is often better than the spring; mulch plants heavily but keep mulch off the bark of bushes and trees.

## **General Landscape Design Tips**

Don't go too big when just starting your first garden! How much time can you devote a minimum of 3x per week to water, weed, make adjustments (e.g. staking plants, turning containers) FOR FIVE MONTHS? What is your budget for everything you need for success?

*Water:* Plant within the length of your hose or irrigation line attached to a water source. Chemicals won't solve fungal problems that stem from overhead watering; water at the root zone, soil level and in the morning as much as possible. Consistency of watering is key to success. Consider adding a simple irrigation system on a timer.

Start small and increase with experience, resources, and success. You will likely need to move or replace plants, make tweaks each year.

*Containers:* Thriller, spiller, filler design principles.

Landscape perennials and annuals look nice in odd numbers, staggered plantings, swaths of color.

*Fall tip:* plant spring bulbs in the Fall and before October. O.k. to put more than one bulb in each hole; fertilize with bulb booster at fall planting time and after bloom in the spring.

## **Pest Deterrents**

Water in the morning at ground level, avoiding plant leaves. Consider an irrigation system later on for consistency and to help avoid wetting plant leaves.

Right plant, right location (e.g. 6+ hours of sun for edibles). Ensure proper water drainage plus spacing of plants for air circulation. Consider native plants to increase pollinators for edibles; these take a couple of years to mature. Don't plant in the ground anywhere near walnut trees.

*Organics:* Apply *when needed:* Dipel dust on leaves or neem oil spray, both according to package directions. Bad infestations might benefit from Spinosad or Captain Jack's Bug Juice.

*Rabbits:* Liquid Fence on leaves of all tender plants as soon as they emerge and afterwards per package directions. Minimum 3 foot tall fencing around edibles and plants they keep munching! Make a ring out of poultry wire to place around favorite plants, edibles.

*Japanese Beetles:* Make a plan with your neighbors! Apply GrubEx or similar product to lawn in May and apply Neem oil EARLY (as directed on label) when they emerge, to leaves of plants they attacked last year. Pick off Japanese beetles in morning into bucket of soapy water and discard. Organics include BeetleJus and Captain Jack's Bug Juice. Use Sevin dust according to package instructions only for bad infestation and continue knocking them off. No JB traps! Reference: JB fact sheet in WRCA Gardening Group Files or E-45-W at the Purdue Education Store.

*Brood X Cicadas:* In the Midwest in 2021, plan to wrap the trunk and cover the canopy of (1/4" or smaller mesh) young bushes and trees if you are within 50 yards of 17+ year old trees, maybe further! They might be everywhere or might not be bad at all. We shall see! Consider waiting to plant new stock until after they depart if it's not too hot- or-wait until the fall. Reference: Cicada fact sheet in WRCA Gardening Group Files or E-47-W at the Purdue Education Store.

Pick off tomato hornworms and plant tomatoes in a different location next year. Remove lower leaves and stake plants (especially indeterminate varieties) so no branches touch the ground.

Remember with chemicals: less is more! Read package labels and wear protection when using. Spray diluted, unscented mild dishwashing detergent to leaves to deter bugs. Treat in morning, shady days. Call the Master Gardener Hotline to help diagnose and treat problems (see page 5).

## **Weed Deterrents**

Keep soil covered with mulch such as leaves, wood chips (no dyed chips in beds with edibles), strips of cardboard, or straw. Groundcover plants help ornamental beds.

Walk around your yard and do a little tidying/weeding every day. If you keep pulling weeds, the roots of most weeds and even invasives like Canadian thistle will eventually lose energy from the starch stored in its roots and will stop sending up new leaves. Kill sod and weeds by covering with cardboard or black plastic or digging it out. This takes time. Minimize tiling when possible.

## **Homemade Weed Control**

From: *Ricky's Gardening Tips and Tricks and Home Horticulture, April 2020*  
Ricky D. Kemery, Allen County Extension Educator Retired, phone: 260-431-6893

Keep in mind that this method only burns-down plants; it doesn't travel within the plant like systemic herbicides such as glyphosate (Round- Up). Since many folks don't want to use Round-Up because of health concerns, this can be an alternative control for common weeds.

People still need to be careful, wearing gloves, eye protection, long sleeves and pants when spraying. This will also damage desirable plants, so use pieces of cardboard to prevent spray drift.

Plants will grow back usually so several applications may be necessary. One can also use this without Epsom salts, as the salts might damage soil if used repeatedly.

1. Mix a gallon of five-percent household white vinegar with a cup of Epsom salt and stir until the salt is completely dissolved.
2. Next, add a tablespoonful of Dawn dish soap to act as a surfactant. Surfactants help solutions adhere better to their targets upon contact. Again, stir the mixture for nice blend.
3. Transfer the solution into an empty plastic spray bottle. Then proceed to spray all weed plants (as needed).

**Keep a garden notebook to keep organized, track your successes and not-so-much experiences. Keeping records increases success year over year.**

**Container gardening demonstration.**

**Garden give-a-ways!**

*Tip: use .ext and .edu in online searches for questions.*

Find help with soil testing and all types of gardening and landscape questions in Allen County, Indiana at the Purdue Extension Hotline:

260-481-6826 Option 2.

Purdue Extension – Allen County

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