

Carlisle County ANR Newsletter March 2023

Cooperative Extension Service

Carlisle County
65 John Roberts Road
Bardwell, KY 42023-0518
(270) 628-5458
Fax: (270) 628-3722
extension.ca.uky.edu

Dates to Remember:

4-H Dog Club-March.16 Extension Office-Flyer attached

Carlisle Co.Ext.Dist.Board Meeting- March 27-Extension Office-6-7 pm.

Garden-Give Away – April 14-Extension Office –tomato and pepper plants

UKY Wheat Field Day-May 9-Princeton

WAVE Ag Day-July 20-Columbus Belmont Park

UKY Corn, Soybean and Tobacco Day-July 25- Princeton

Rinse and Return with Lunch-July 26, -lunch at Extension Office





Come learn about
breeds of dogs,
ownership responsibility
bring your dog to dog
days- fun activities
Ages 9-18
Chuck Flowers, Club Leader

Meeting Dates
3:30-5:00 PM
Jan. 24
Feb. 16
March 16
April 20
May 18
June 29

Call Carlisle Co. Extension at
(270) 628-5458 by Jan. 13, 2023 to enroll!



University of Kentucky
College of Agriculture,
Food and Environment
Cooperative Extension Service
4-H Youth Development

Cooperative Extension Service
Agriculture and Natural Resources
Family and Consumer Sciences
4-H Youth Development
Community and Economic Development

Educational programs of Kentucky's Cooperative Extension serve all people regardless of economic or social status and will not discriminate on the basis of race, color, ethnic origin, national origin, creed, religion, political belief, sex, sexual orientation, gender identity, gender expression, pregnancy, marital status, genetic information, age, marital status, or physical or mental disability. University of Kentucky, Kentucky State University, U.S. Department of Agriculture, and Kentucky Counties, Cooperating.
LEXINGTON, KY 40549



Disability
accommodated
with prior notification.

Please call to sign up 270-628-5458



Cleaning & Disinfecting Home Garden Tools & Equipment

Kim Leonberger
Plant Pathology
Extension Associate

Kara Back
Horticulture
County Extension Agent

Nicole Gauthier
Plant Pathology
Extension Specialist

IMPORTANCE

Dirty tools, containers, and surfaces come as no surprise to home gardeners (FIGURE 1). Rinsing with water to remove obvious soil or plant residues is a common practice. However, this type of basic cleaning can fail to remove microscopic plant pathogens that can remain on surfaces. Tools, containers, shoes, and surfaces should also be disinfected to remove fungal, bacterial, and viral plant pathogens to prevent transmission to healthy plants. Some household products can either clean items or disinfect, while others can both clean and disinfect. The following details the cleaning and disinfecting methods suggested for home gardeners. [Note: Guidelines for cleaning and disinfecting surfaces and equipment in a commercial production setting are more stringent; producers should consult *Cleaning and Sanitizing Commercial Greenhouse Surfaces* (PPFS-GH-07) for recommendations.]



FIGURE 1. POTS (A) AND TROWELS (B) OFTEN BECOME COVERED WITH SOIL; PRUNERS (C) MAY BECOME COVERED IN PLANT SAP OR PLANT DEBRIS DURING USE. THESE ITEMS SHOULD BE CLEANED AND SANITIZED TO REMOVE POTENTIAL PATHOGENS.

PRODUCTS FOR CLEANING

Cleaning products, such as soaps and detergents, help remove loose organic matter. This partial list includes some of the common products suitable for cleaning. When cleaning tools and supplies, it is helpful to use brushes, scrubbing pads, and paper towels to aid in the removal of dirt and plant debris.

- Dish detergent
- Liquid soap, hand soap
- Household cleaner
- Bathroom cleaner
- Brush or broom
- Towels



FIGURE 2. EXAMPLES OF SOME COMMON HOUSEHOLD PRODUCTS THAT CAN BE USED FOR CLEANING GARDEN TOOLS AND SUPPLIES.

PRODUCTS FOR DISINFECTION

Disinfectants/sanitizers are products that have anti-microbial activity and can kill disease-causing microorganisms. Microscopic organisms can be transmitted on tools and surfaces, even after rinsing or washing. Disinfectant products may also be labeled as antimicrobials or sanitizers. This partial list is a sample of common household products that can be used to disinfect garden tools and surfaces.



FIGURE 3. EXAMPLES OF SOME COMMON HOUSEHOLD PRODUCTS THAT CAN BE USED FOR DISINFECTING GARDEN TOOLS AND SUPPLIES.

Products that can be used to both clean and disinfect are noted with an asterisk (*).

- Rubbing alcohol or alcohol prep pads (available as 70% solution, do not dilute)
- Bleach (Mix 9 parts water with 1 part bleach to produce a 10% solution)
- Trisodium phosphate, TSP (Mix 9 parts water with 1 part TSP powder to produce a 10% solution)
- Hand sanitizer
- Household cleaner, such as Lysol™ Concentrate Disinfectant*
- Antimicrobial bathroom cleaner, such as Scrubbing Bubbles™*

PROCEDURE FOR CLEANING & DISINFECTING GARDEN EQUIPMENT

STEP 1: Cleaning

Clean and scrub to remove organic matter, which can inhibit the disinfection process. Begin with a water rinse and then follow up with a soapy wash. Rinse surfaces after washing to remove residues.

FIGURE 4. BRUSHES ARE HELPFUL FOR SCRUBBING SOIL AND DEBRIS FROM GARDEN TOOLS, SUCH AS PRUNERS AND TROWELS.



STEP 2: Disinfecting

Methods for disinfection include soaking (FIGURE 5A), dipping (FIGURE 5B), and spraying (FIGURE 5C). Exposure time is the length of time the product needs to remain in contact with the surface to kill or inactivate pathogens. Most products, including household cleaners (Lysol™), rubbing alcohol (70%) and TSP (10%) require a 3- to 5-minute soak to effectively sanitize (inactivate pathogens). Note that bleach is the most effective disinfectant and can kill surface microorganisms within 30 seconds.

Both bleach and TSP are corrosive to metal tools and can be harmful if inhaled; thus, they are not recommended as a first choice for disinfection. Never mix bleach with other cleaning products, as a toxic gas can be produced. Garden tools with wooden parts are often more difficult to disinfect than those made of plastic, metal, or fiberglass.



FIGURE 5. SUPPLIES, SUCH AS POTS, CAN BE SOAKED IN A DISINFECTANT SOLUTION (A). PRUNERS, SCISSORS, AND TROWELS CAN BE DIPPED IN DISINFECTANT, BE SURE ENTIRE CUTTING SURFACES ARE COMPLETELY SUBMERGED IN THE SOLUTION (B). SOME DISINFECTANT PRODUCTS CAN BE APPLIED BY SPRAYING (C).

STEP 3: Rinse & Dry

A thorough rinse (FIGURE 6) can remove residues, as well as products such as bleach, that may corrode tools and metal surfaces. Allow tools to dry completely before storing (FIGURE 7). Some tools may benefit from oiling before storage.

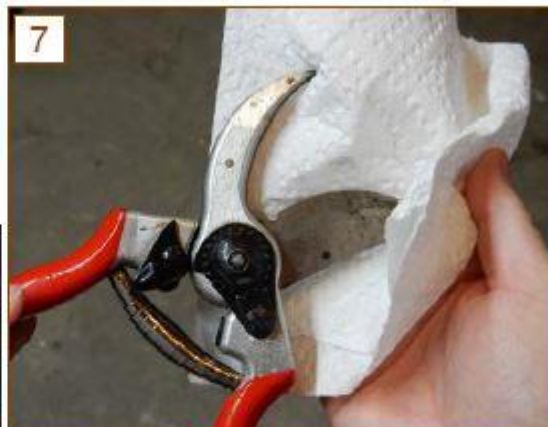
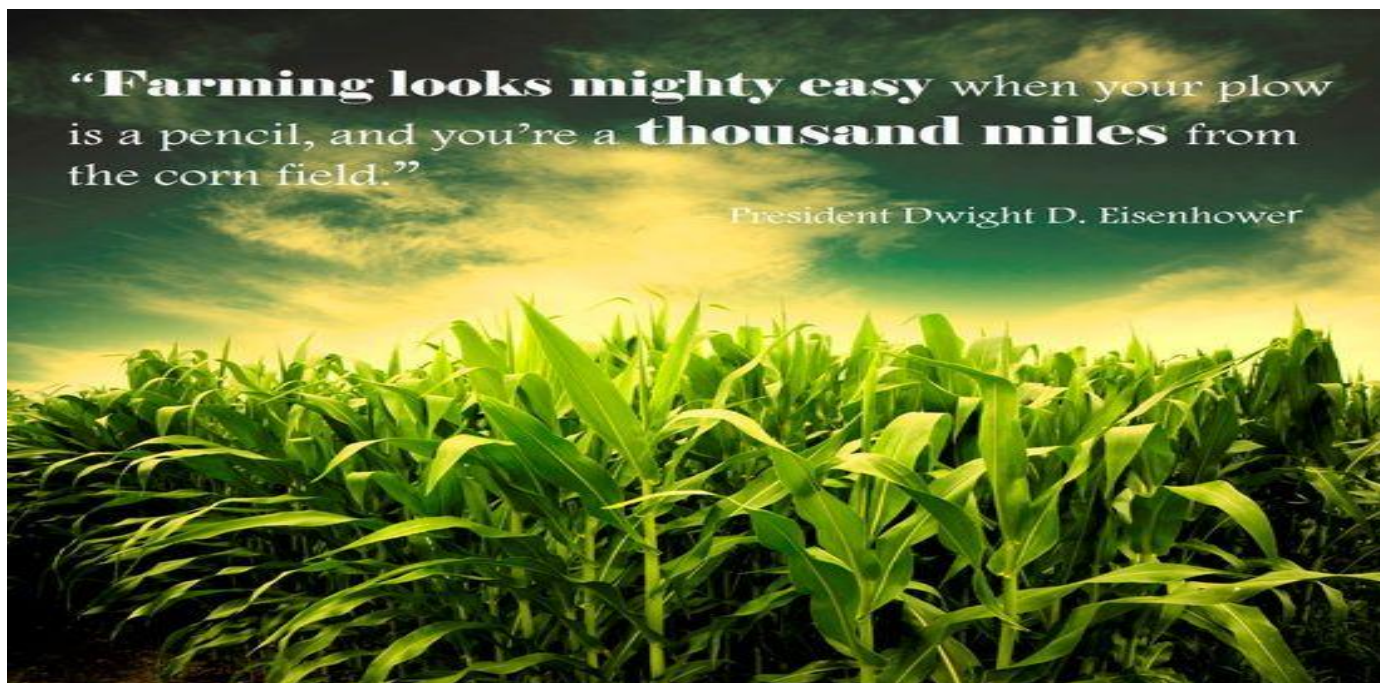


FIGURE 6. TOOLS, POTS, AND OTHER SUPPLIES SHOULD BE RINSED WITH CLEAN WATER AFTER DISINFECTING. FIGURE 7. POTS AND TOOLS SHOULD BE COMPLETELY DRY BEFORE STORING. WHILE POTS CAN BE SET OUT TO AIR-DRY, METAL TOOLS SHOULD BE DRIED COMPLETELY WITH PAPER TOWELS TO PREVENT RUST.



“Farming looks mighty easy when your plow is a pencil, and you’re a **thousand miles** from the corn field.”

President Dwight D. Eisenhower

NO FARMERS NO FOOD

Thank you Farmers for all that you do!

Check the following table for Garden Planting Dates!

Table 14. Earliest and latest planting dates in the garden in Kentucky. (If producing your own transplants, begin two to 12 weeks earlier than these listed dates. See Table 5.)

Crops	Earliest Safe Planting Date			Latest Safe Planting Date ¹		
	Western	Central	Eastern	Eastern	Central	Western
Asparagus (crowns)	Mar 10	Mar 15	Mar 20	(Spring only)		
Beans (snap)	Apr 10	Apr 25	May 1	July 15	July 25	Aug 1
Beans (lima)	Apr 15	May 1	May 10	June 15	June 20	July 1
Beets	Mar 10	Mar 15	Mar 20	July 15	July 20	Aug 15
Broccoli (plants)	Mar 30	Apr 5	Apr 10	July 15	Aug 1	Aug 15
B. Sprouts (plants)	Mar 30	Apr 5	Apr 10	July 1	July 15	Aug 1
Cabbage	Mar 15	Mar 25	Apr 1	July 1	July 15	Aug 1
Carrots	Mar 10	Mar 20	Apr 1	July 1	July 15	Aug 1
Cauliflower (plants)	Mar 30	Apr 5	Apr 10	July 15	July 20	Aug 5
Celery	Apr 1	Apr 5	Apr 10	June 15	July 1	July 15
Chard	Mar 15	Mar 20	Apr 1	June 15	July 15	Aug 1
Collards	Mar 1	Mar 10	Mar 15	July 15	Aug 1	Aug 15
Sweet Corn	Apr 10	Apr 20	May 1	June 15	July 10	July 20
Cucumbers	Apr 20	May 1	May 10	June 15	July 1	July 15
Eggplant (plants)	May 1	May 10	May 15	June 1	June 15	July 1
Kale	Mar 10	Mar 20	Apr 1	July 15	Aug 1	Aug 15
Kohlrabi	Mar 15	Mar 20	Mar 25	July 15	Aug 1	Aug 15
Lettuce (leaf)	Mar 15	Mar 25	Apr 1	Aug 1	Aug 15	Sept 1
Lettuce (bibb plants)	Mar 15	Mar 25	Apr 1	July 15	Aug 1	Aug 15
Lettuce (head plants)	Mar 15	Mar 25	Apr 1	July 1	July 15	Aug 1
Muskmelons	Apr 20	May 10	May 15	June 15	July 1	July 15
Okra	Apr 20	May 10	May 15	July 1	July 15	Aug 1
Onions (sets)	Mar 1	Mar 10	Mar 15	(Spring only)		
Onions (plants)	Mar 15	Mar 25	Apr 1	June 15	July 1	July 15
Onions (seed)	Mar 10	Mar 20	Apr 1	June 1	June 15	July 1
Parsley	Mar 10	Mar 20	Apr 1	July 15	Aug 1	Aug 15
Parsnips	Mar 10	Mar 20	Apr 1	June 1	June 15	July 1
Peas	Feb 20	Mar 1	Mar 15	(Spring only)		
Peppers (plants)	May 1	May 10	May 20	June 15	July 1	July 15
Irish Potatoes	Mar 15	Mar 15	Mar 20	June 15	July 1	July 15
Sweet Potatoes	May 1	May 10	May 20	June 1	June 10	June 15
Pumpkins	Apr 20	May 5	May 10	June 1	June 15	July 1
Radishes	Mar 1	Mar 10	Mar 15	Sept 1	Sept 15	Oct 1
Rhubarb (crowns)	Mar 1	Mar 10	Mar 15	(Spring only)		
Rutabaga	Mar 1	Mar 10	Mar 15	July 1	July 10	July 15
Southern Peas	Apr 20	May 5	May 10	June 15	July 1	July 15
Snow Peas	Feb 20	Mar 1	Mar 15	July 20	Aug 1	Aug 8
Spinach	Feb 15	Mar 1	Mar 10	Aug 15	Sept 1	Sept 15
Summer Squash	Apr 20	May 10	May 15	July 15	Aug 1	Aug 15
Tomatoes (plants)	Apr 20	May 5	May 15	June 1	June 15	July 1
Turnips	Mar 1	Mar 10	Mar 15	July 15	Aug 1	Aug 15
Watermelons	Apr 20	May 5	May 15	June 15	July 1	July 15
Winter Squash	Apr 20	May 10	May 15	June 15	July 1	July 15

¹ Based on average of early maturing varieties. Mid-season and late-maturing varieties need to be planted 15 to 30 days earlier than latest date. Nearly all of the fall-planted garden crops will require irrigation during dry periods. Additional insect controls may be necessary for these tender young plants.

This table can be used for Garden Planting Suggestions:

Table 4. Use this vegetable planting guide to plant vegetables the right way.

Vegetable	Number of Transplants or Seeds per Foot	Distance Between:		Planting Depth (in)
		Plants When Thinned or Transplanted (in)	Rows (in)	
Asparagus	1 crown	18	30	6-8
Beans, bush, lima	6-8 seeds	4-5	30	1-1 ½
Beans, bush, snap	8 seeds	2-3	30	1-1 ½
Beets	10 seeds	2-3	18	¼-½
Broccoli	1 transplant	14-18	30	
Brussels sprouts	1 transplant per 2 ft	24	36	
Cabbage	1 transplant	9-18	30	
Carrots	15-20 seeds	2-3	18	¼
Cauliflower	1 transplant	16-18	30	
Celery	2 transplants	6-8	30	
Chard	8-10 seeds	6-8	30	¼-½
Chinese cabbage	4-6 seeds	12-15	24-30	¼-½
Collards	8-10 seeds	2-4	24	¼-½
Cucumbers	4-5 seeds	24-36	30	½-1
Eggplant	1 transplant	18	30	
Endive	4-6 seeds	9-12	18-30	½
Garlic, from cloves	1 clove	6	12-18	1 ½
Horseradish	1 root	18	30	2
Kale	4-6 seeds	8-12	24-30	¼-½
Kohlrabi	6-8 seeds	3-6	18-30	¼-½
Leeks	10-15 seeds	3-4	20	½
Lettuce, head	1 transplant	12-18	20	¼
Lettuce, leaf	20-30 seeds	½	8-12	¼
Muskmelons	2-3 seeds	24-36	60	½-¾
Mustard	20 seeds	3	18	¼
New Zealand spinach	4-6 seeds	12	30	½
Okra	3 seeds	12	30	1
Onions, from seed	10-15 seeds	4	12-18	¼-½
Onions	3-6 sets	4	12-18	1-2
Parsley	10-15 seeds	4-6	12-18	¼-½
Parsnips	12 seeds	2-3	18	½-¾
Peas	15 seeds	Do not thin	30-48	1
Peppers	1 transplant	14-18	30-36	
Potatoes	1 seed piece	10-12	36	3-5
Pumpkins	1-2 seeds	4 ft	8-12 ft	1
Radishes, spring	10-15 seeds	2-3	12	¼
Radishes, winter	10-15 seeds	2-4	12	¼
Rhubarb	1 crown per 2 ft	36	4-5 ft	
Rutabaga	4-6 seeds	6-8	18-30	½
Southern pea	3-4 seeds	2-3	30	
Spinach	6 seeds	4-6	12-18	¼
Squash, summer	2-3 seeds in hill	24	48	1
Squash, winter	1-2 seeds	48	6-8 ft	1
Sweet corn	2 seeds	8-10	30	1-2
Sweet potatoes	1 slip	15	36	
Tomatoes	1 transplant per 2 ft	24	36	
Turnips (roots)	6-8 seeds	3-4	12-15	½
Turnips (greens)	10-12 seeds	2-3	12-15	½
Watermelons	2-3 seeds in hill	6-8 ft	72	1



Garden Give Away-April 14 at the Carlisle County Extension Office- pictured here plants given away last year.

Information released by

Chuck Flowers
Carlisle County Extension ANR/4-H



University of Kentucky
College of Agriculture,
Food and Environment
Cooperative Extension Service

NONPROFIT ORG
US POSTAGE PAID
Bardwell, KY
PERMIT 518

Carlisle County
P O Box 518
Bardwell, KY, 42023-0518

RETURN SERVICE REQUESTED