



Colesville Nursery

Chemical Cheat Sheet

For Virginian Gardeners

All of the listed products can be found in our Garden Shop!

804.798.5472 ext. 111

Always remember to READ & FOLLOW the label exactly as it is worded; this is essential to keeping both you & our environment safe & healthy. Always call a local extension agent with concerns, serious problems or for information about disposal.

If you would like non-chemical suggestions, please ask our staff.

Who am I hurting?

Here is a Color Key to demonstrate how harmful these chemicals are to our native pollinators/fauna/humans

No Harm-Least harmful = 

Moderately Harmful = 

USE WITH CAUTION = 

Insecticide

- **Neem Oil (Monterey product)** - Concentrate: 16oz \$26 Ready-To-Use: 32oz \$16
 - **Insecticide/Miticide/Fungicide**
 - Active Ingredient: Clarified Hydrophobic Extract of Neem Oil
 - CONTROLS:
 - Black Spot
 - Powdery Mildew
 - Rust
 - Needle Rust
 - Downy Mildew
 - Spider Mites
 - Aphids
 - Whiteflies
 - Twig & Tip Blight
 - Scab
 - Botrytis and more!
 - USE ON: Ornamental Trees & Shrubs
 - Houseplants
 - Fruits
 - Herbs
 - Nuts

- Vegetables
- **A favorite*

- **Monterey B.t. (Monterey product)** - Concentrate: 16oz \$20 Ready-To-Use: 32oz
\$16

- Biological Insecticide
- Active Ingredient: Bacillus thuringiensis (kurstaki strain)
- CONTROLS:
 - Worms
 - Caterpillars
- USE ON:
 - Fruits
 - Vegetables
 - Ornamentals
 - Deciduous trees

****This product is moderately toxic to our native pollinators, please use it away from flowers/buds, after dusk / before daybreak & in responsible quantities. Most caterpillars & worms will be treated naturally by inviting birds into your yard with berried plants or bird baths.*

- **Monterey Garden Insect Spray RTU (Monterey product)** - Ready to Use: 1qt. \$16

- Insecticide
- Active Ingredient:
 - Potassium Salts of Fatty Acids
 - Spinosad
- USE ON:
 - Vegetables
 - Fruit
 - Nuts
 - Citrus
 - Berries
 - Herbs
 - Ornamentals
 - Shrubs/Trees
 - Flowers
- CONTROLS:
 - Woolly aphids
 - Ants (like Fire Ants/Carpenter Ants)
 - Caterpillars
 - Earwigs
 - Fruit Flies
 - Gypsy Moth
 - Crickets

- Leafhoppers and so much more!
- **Earth-Tone Insecticidal Soap (Espoma product) - Concentrate: 16oz \$18.99**
Ready-To-Use: 24oz \$7.99

- Truly gentle/organic insecticidal soap
 - You can use it up to the Day of Harvest & Indoors!
- Active Ingredient:
 - Potassium Salts
- CONTROLS:
 - Typical garden insects
- USE ON:
 - All plants (edible/ornamental/landscape)

***A favorite!*

- **Earth-tone Insect Control (Espoma product) - Concentrate: 16oz \$19 Ready-To-Use: 24oz \$7.99**

- Dormant & Growing Season Insecticide
- Active Ingredient:
 - Canola Oil
 - 0.5% - Pyrethrins (causing the moderately toxic warning label)
- CONTROLS:
 - Aphids
 - Beetles
 - Invasive/Harmful caterpillars
 - Scale
 - Mealy Bugs
 - White fly
 - Fungus gnats and so much more!
- USE ON:
 - All plants!
 - Avoid direct spray on:
 - Blooms
 - Conifers

- **Earth-Tone 3n1 Disease Control (Espoma product) - Concentrate: 16oz \$18.99**
Ready-To-Use: 24oz \$7.99

- Insecticide/Fungicide/Miticide
- Active Ingredient
 - Sulfur
 - 0.25% Pyrethrins
- CONTROLS:
 - Black Spot
 - Powdery Mildew
 - Rust
 - Aphids

- Mites
 - Leafhoppers
 - Whiteflies
 - Spittlebugs
 - Mealybugs and much more!
- USE ON:
 - All plants
- **Horticulture Oil (Monterey Product)** - RTU Spray \$16.00 , Concentrates: 1qt - \$18.00 , Pt. \$10.50
 - Insecticide, Fungicide, Miticide
 - Active Ingredient
 - 80% Mineral Oil (high conc. of Petroleum distillates)
 - CONTROLS:
 - Aphids
 - Mites
 - Scales
 - Whiteflies
 - Soft Bodied Insects
 - USE ON:
 - All plants
- **All Seasons Spray Oil (Bonide Product)** - Concentrates: 1gal \$34.00 , 1qt \$16.00
 - Pre & Post-Emergent (active & dormant insects)
 - Active Ingredient:
 - 98% Mineral Oil (high conc. Of Petroleum distillates)
 - CONTROLS: kills insects at all stages, including eggs
 - Scale
 - Fungus gnats
 - Aphids
 - Thrips
 - Mealybugs
 - Leafminer
 - Whiteflies
 - USE ON:
 - All plants
- **Deer Repellent (Bobbex Product)** - Concentrates: 32oz \$31.99 , RTU 48oz \$29.99 , RTU 32oz \$16.00
 - Repellent by odor - Deer, Elk, Moose
 - Active Ingredient:
 - 2.5% Putrescent whole egg
 - CONTROLS:
 - Deer
 - Elk

- Moose
- USE ON:
 - All plants

- **Animal Repellent (Bobbex Product) - Concentrates: 32oz \$31.99 & RTU 48oz \$29.99**

- Repellent by odor - Rabbit, squirrel, groundhog, vole, deer, chipmunk, elk, moose
- Active Ingredient:
 - 2.5% Putrescent whole egg
- CONTROLS:
 - Deer
 - Elk
 - Moose
- USE ON:
 - All plants

- **Milky Spore - Powder 10oz \$38.00**

- Pre-emergent Pesticide
- Active Ingredient:
 - 0.02% Spores of Bacillus popilliae
- CONTROLS:
 - Dormant Japanese Beetles
- USE ON:
 - Ground around all plants

- **Concern Diatomaceous Earth - Powder 1.5lb \$6.99**

- Post-Emergent Insecticide
- Active Ingredient
 - 85% Silicon dioxide
 - 10% Other elemental oxides
- CONTROLS:
 - Cockroaches
 - Ants
 - Fleas
 - Silverfish
 - Earwigs
- USE ON:
 - Areas where pests are found, indoor & outdoor use

- **Bug & Slug (Espoma Product) - Granular: 1.25 lbs \$14.99**

- Insecticide
- Active Ingredient
 - 0.97% Iron phosphate
 - 0.07% Spinosad
- CONTROLS:
 - Earwigs

- Cutworms
- Sowbugs
- Pillbugs
- Slugs
- Snails
- USE ON:
 - Edible, ornamental & woody plants

Herbicide

● **Grass Getter (Monterey Product) - Concentrate: 8oz \$32**

- Post-Emergent Grass Herbicide
- Active Ingredient: Sethoxydim: 2-[1-(ethoxyimino) butyl]-5-[2-ethylthio)propyl]-3-hydroxy-2-cyclohexen-1-one
- CONTROLS:
 - Weedy Grasses
- USE ON:
 - Around the base of:
 - Flowers
 - Evergreens
 - Ornamental Groundcovers
 - Bedding Plants
 - Shrubs
 - Trees
 - **Run-off toxicity is frequent with this product, please do not use before or immediately after rain, near sewers or rivers**
 - **Do not use around food, while the label suggests this can be used near vegetables/fruits, this chemical has not had conclusive data on it's effects on humans or animals.**

● **Spurge Power (Monterey Product) - Concentrate - 1pt. \$19.99**

- Post-Emergent Selective Broadleaf Herbicide for Residential Lawns
- Active Ingredients:
 - 56.14% Isooctyl Ester MCPA Acid
 - 5% Butoxyethanol Ester of Triclopyr Acid
 - Dicamba Acid 3.6%
- CONTROLS:
 - Chickweeds
 - Dandelions
 - Clover
 - Oxalis
 - Spurge
 - Wild Violet

- Most broadleaf “weeds” (*all of the aforementioned plants are beneficial to our environment and can be affordable & sustainable alternatives to lawn grass.*)
 - USE ON:
 - All broadleaf “weeds” (*Many “weeds” are beneficial and often even native to our environment and can be affordable & sustainable alternatives to lawn grass.*)
- **Chickweed, Clover & Oxalis Killer (Bonide product) - Concentrate: 16oz \$14**
 - Selective weed control (advertised to kill weeds but not perennials, shrubs & trees)
 - Active Ingredients:
 - Dimethylamine Salt of 2-Methyl-4-Chlorophenoxyacetic Acid
 - Triethylamine Salt of 3, 5, 6-Trichloro-2-Pyridinyloxyacetic Acid
 - Dimethylamine Salt of Dicamba (3,6-Dichloro-o-Anisic Acid)
 - CONTROLS:
 - Chickweed
 - Speedwell
 - Veronica
 - Ground Ivy
 - Broadleaf weeds (like Dandelion)
 - USE ON:
 - Around the base of:
 - Perennials
 - Shrubs
 - Trees
 - Ornamental plants
 - **Use this with extreme care. The active chemicals are toxic to animals, humans and our native pollinators!**
 - **Most weeds this product targets can be controlled manually & by planting aggressive native plants in their stead.**
 - **Putting down a layer of cardboard for 1 growing season will also have the same effect without harming you or the environment.**
- **Herbicide helper (Monterey product) - Concentrate: 16oz \$7.99**
 - Spreader & penetrant to be paired with Herbicides (both selective & nonselective)
 - Active Ingredient:
 - Petroleum distillate
 - Alkylphenol Ethoxylate
 - USE:
 - Use with Herbicides to make them more effective
 - ***We recommend this for areas overrun with invasive plants/weeds, but use when pollinators and animals are not as active (dusk, daybreak, winter time)*

- **Remuda Full Strength (Monterey product) - Concentrate: 1qt. \$28 1pint \$14**
 - Post Emergence Herbicide
 - Active Ingredient:
 - Glyphosate (*the main ingredient in RoundUp*)
 - CONTROLS:
 - All vegetation
 - All ornamental plants
 - Basically effective at keeping a lawn happy and no plants
 - USE ON:
 - Anything you don't want to live
 - *****Only recommended for use on heavy invasive plant issues!!***
 - ***Glyphosate has NOT been labeled as carcinogenic according to any global health or regulatory organization HOWEVER this product needs to be handled with extreme care. Glyphosate is harmful to our environment and while handling the product properly will not necessarily result in health issues, having the run-off compound in our water and soil WILL cause health issues; handle with extreme care.***

Fungicide

- **Garden Phos (Monterey product) - Concentrate: 16oz \$18.00**
 - Systemic Fungicide
 - Active Ingredient: Mono- and di-potassium salts of Phosphorous Acid
 - CONTROLS:
 - Root Rot
 - Downy Mildew
 - Fire Blight
 - Phytophthora
 - Pythium
 - USE ON:
 - Ornamental trees & shrubs (fleshy / deciduous)
 - Woody Trees (hardwood deciduous)
 - Vegetables (edible annuals/perennials)
 - Fruits (edible shrubs/trees)
 - Bedding Plants (annuals, biennials, perennials)
- **Earth-Tone Garden Fungicide (Espoma product) - Ready-To-Use: 24oz \$7.99**
 - Fungicide
 - Active Ingredient:
 - Copper Octanoate (Copper Soap)
 - CONTROLS:

- Downy Mildews
 - Leaf/fruit spot
 - Blights
 - Rust
- USE ON:
 - Great for Tomato blight - *ONLY USE if problem is very bad, do not use near harvest dates*
 - Vegetables
 - Flowers
 - Ornamentals
 - Fruits
- **Liqui-Cop RTS (Monterey product) - Ready-To-Spray: \$26**
 - Fungicide
 - Active Ingredient:
 - Copper diammonia diacetate complex
 - CONTROLS:
 - Most diseases that attack citrus/fruit/nut trees - **extremely toxic do not use on plants for harvesting!**
 - Shothole fungus
 - USE ON:
 - Laurels (prunus)
 - Plants that you do not intend to harvest
- **Monterey Complete Disease Control RTU - Ready-To-Use Spray: 1qt \$22.00**
 - Biofungicide/Bactericide
 - Active Ingredient:
 - 9.88% Bacillus amyloliquefaciens strain D747
 - CONTROLS:
 - Fungus
 - Bacteria
 - USE ON:
 - Houseplants
 - Tropical Plants
 - Flowering Plants
 - Vegetables
 - Shrubs
 - Fruits
 - Nuts
 - Ornamental Trees

Chemicals to Beware of & Chemical Tips:

- Just because a label has an “OMRI” (Organic Materials Review Institute) seal of organic gardening approval does NOT mean it is safe for our pollinators or YOU!
 - The term "organic" is not currently regulated for many non-food products such as pet food, **cosmetics**, household products and **fertilizers**. These products may meet non-government, privately maintained standards, but the use of the term "organic" on labels is not federally regulated for these non-food products.
 - *For example, a fertilizer may be "OMRI Listed," meaning that it meets OMRI's standards for a fertilizer, but almost any fertilizer can use the term "organic" on the label. Canadian and Mexican laws are similar regarding what can and can't be called "organic."*
(source: <https://www.omri.org/what-we-do>)
- **Organic DOES NOT mean Safe** - the label “organic” on any products in the USA only refers to the fact that the ingredients/pesticides used etc. are naturally occurring elements rather than man-made. While historically for the organic movement, we assumed that naturally occurring elements had to be safer than man-made elements, we have found that to not be true at all. *Concentrations of any elements have extremely harmful effects on humans, animals and the environment!*
(source: <https://geneticliteracyproject.org/2020/07/23/organic-fungicide-copper-sulfate-poses-dangers-to-humans-animals-insects-how-does-it-compare-to-conventional-pesticides/>)