

Gardening Basics

LESSON 5:

FERTILIZERS AND AMENDMENTS

What's the Difference?

Fertilizers:

- Added to soil to supply *nutrients* to your plants
- Can be supplied through organic or inorganic materials
- Can be added to your soil or plants in a variety of ways
- Plants use up nutrients in the soil as they grow. Fertilizers help supply additional nutrients as your plant is growing

Amendments:

- Added to your soil to change its *physical structure*
- Can be used to alter any physical property of your soil, such as water retention, structure, organic composition
- Usually done through the addition of organic material, which needs to be thoroughly mixed in to ensure even distribution
- Can also supply nutrients to your soil (think compost)!



Fertilizers Vs. Amendments



Timing for Fertilizers:

- Can be added throughout the growing season as needed, depending on the nutrient content and structure of your soil and the type of crops you are growing
- Fertilizers should be applied around three weeks after plants have been planted, to allow for them to develop first so as to not damage the roots

Timing for Amendments:

- Should be added to your garden in the Spring, before your growing season, or in the Fall, after your crops have been harvested
- Amendments are worked evenly throughout the soil to change the overall composition

Gardening Basics

LESSON 5:

FERTILIZERS AND AMENDMENTS

Fertilizer Basics

N-P-K:

- All fertilizers will have three numbers clearly listed on the label
- The numbers represent the percentage of the nutrients Nitrogen, Phosphorous, and Potassium that are in the fertilizer
- The numbers always show the amount of these nutrients in this order
- These are called macronutrients because they are needed by plants in larger amounts



What Nutrients Do:

- Nitrogen is responsible for vegetative green growth, and is used up and or leaches from soil fastest
- Phosphorous is used by plants for root growth
- Potassium helps with blooms and fruit production among other things
- Nutrients that are needed in smaller amounts are called micronutrients, but are still important!

Organic

- Organic fertilizers are made from carbon-based materials
- They typically have lower nutrient levels than inorganic fertilizers
- Organic fertilizers are easy to use because they won't burn your plants if you apply too much. The excess nutrients will either stay or dissipate in your soil

Inorganic

- Inorganic fertilizers are made from synthetic compounds
- They often contain higher amounts of nutrients, which mean your plants get a more concentrated dose, but also means that adding too much can burn your plants by over-fertilizing

Gardening Basics

LESSON 5:

FERTILIZERS AND AMENDMENTS

Fertilizer Formulations



Liquid

- Fast acting
- Concentrated formula, need to add water to dilute
- Need to reapply more often



Granular

- Slower release than liquid
- Some are water soluble, but most are simply added directly to soil
- Most organic fertilizers



Prill

- Slow release
- Coated to slow down the release rate
- Many inorganic fertilizers come in this form
- Need to reapply less often