

# Horticulture Hints

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Biomass is a word that has come into popular use in recent days. I've watched many Youtube videos on things about gardening, raised bed gardening, food forests, etc., and the word biomass comes up a lot. Often in the context of cover crops or green manure. Let's start with some definitions.

The word 'biomass' in the context of energy production, is matter from recently living organisms which is used for bioenergy production. Examples include wood, wood



Hairy vetch (*Vicia villosa*)

residues, energy crops, agricultural residues including straw, and organic waste from industry and households (definition from Wikipedia). Biomass can be divided into two categories: products that provide biomass for creating energy for use, and products that are used to directly create growing mediums (dirt, or soil, if you're more sophisticated). An example of the former is that of turning used frying oil from restaurants, etc. into 'biodiesel' for vehicles. The latter is in the form of living things that are placed on or grown in soil, or turned

under in the soil to rot, and therefore improve said soil.

The biomass that I want to talk about today is cover crops and green manure. That may sound like two subjects, but 'cover crops' can be used as 'green manure'. Let's just start with cover crops and what they are. A cover crop is any plant (annual or perennial) that is used to cover (!) soil for a season (annual), or number of years (perennial), to manage soil fertility. Cover crops can be used to:

- Control weeds through competition for available space, light, water, and nutrients



Lupine (*Lupinus*)

- Prevent soil erosion caused by heavy rainfall or winds
- Protect crops (such as watermelon) from sand blasting damage
- Retain and harvest residual nutrients that would be leached in the off-season
- Recycle and restore nutrients in a crop system
- Reduce select harmful nematode populations

- Create additional income (such as hay production)
- Provide mulch cover for row middles and/or mulched beds
- Provide habitat for beneficial insects and birds

The Extension Service has a list of recommended crops for cover for both summer and winter. The winter crops recommended by the Service for this part of Florida are crimson clover, hairy vetch, lupine (leguminous - that is, they add nitrogen to the soil), black oats and winter rye (grasses). Then in the spring, if you turn all this growth under into the soil, you have created 'green manure'. (Aren't you clever?)

Baking soda is a harmless (most of the time) substance, and no respectable kitchen should be without it. But it seems that it also will kill fungus in the garden. Mix 4 tablespoons of the powder in a gallon of water and sprinkle or spray the mix on the ground around your plants (don't let too much soak in, it will alkalinize your soil).

Some plants like geraniums and begonias like some alkaline, so mixing a little bit in their water should help them perk up. Keep in mind, too, that baking soda is a mild and natural abrasive. It works very well to clean up flower pots that you plan to reuse, and to give those bird baths an occasional deep cleaning. Just a little baking soda with enough water to make a paste will do the job.

Don't forget that the Citrus County ban on fertilizing lawns begins November 1 and ends March 31, 2024. You have the month of October during which you may fertilize, and after that, your lawn will slow down growth to almost nothing, and will go into a semi-dormant state. It doesn't need the nutrients then. This ban protects our watersheds from unnecessary phosphorus from runoff. Phosphorus in the fertilizer is what gives your lawn that beautiful green color. It's what also causes blooms of algae that choke waterways and kill fish.

Get out and enjoy this beautiful weather!  
Happy gardening!