

### PLANTING:

**Lilacs need three things in order to thrive:**

**Full Sun**, like a rose, at least 6 hours per day, or blooms will be scarce. The lilac may thrive in the leaf department but will probably not be a colossal bloomer unless this requirement is met. The lilac will also be more disease resistant, will have stored up more food for itself, and be able to withstand colder winters if it has had a Spring and Summer season with plenty of sun.

**Good Drainage.** Lilacs do not like to have wet feet. Therefore, planting on a hillside can be ideal, or mounding the soil a foot or more higher than the terrain and planting in the mound can suffice. Clay soils that hold moisture may need to be augmented, that is mixed with loam, pea sized gravel, and/or mulch.

**Neutral or Slightly Alkaline Soil.** In order for lilacs to obtain the nutrients they need from the soil, the soil must be slightly alkaline. This allows the plant to easily absorb what it needs. A soil pH test kit may be used or sending samples off to a lab may help determine if the soil is right for lilacs. Soils that are more than slightly acidic may need Lime powder added to ensure proper growth and health of the plant. A bag of Lime is easily obtainable at garden shops and is not expensive for one or two or a dozen lilacs. It is advisable to not plant a lilac in a grove of rhododendrons, azaleas, or conifers, as they tend to acidify the soil.

I let buyers in the nursery know, if they have these three things, the lilac is a wonderful, easy care plant that will likely give many, many, years and several generations of enjoyment.

**As we say at the farm, "Plant it Forward, give joy for generations to come!"**

### FOOD:

If your plant is blooming, or you wish to bring it into bloom the next year, you need to provide a fertilizer with a higher percentage of phosphorus. Fertilizer can be either mineral or organic material, however, it must deliver a somewhat standardized amount. Horse manure is better than cow manure if you have it available. Keep in mind, manure can be problematic, so stay away from cow manure. The grain given to cows is often genetically modified to accept or resist glyphosate, or RoundUp, and the chemical herbicide is so persistent it can be present in high amounts in the manure of animals eating this grain. The result is sad, plants that are not genetically modified to resist the herbicide will die, or not thrive. It is best, when in doubt, to use a mineral fertilizer. Lilacs love it and will thrive on it and as long as the soil is slightly alkaline or neutral they will be able to absorb the nutrients they need.

Fertilizer is always listed as 'NPK', Nitrogen, Phosphorus, Potassium, in that order. So it is that phosphorus is indicated by the middle number on the package. Lilacs and most flowering plants need a higher percentage of phosphorus to bloom. Nitrogen in the fertilizer helps leaf growth, and potassium is needed for root growth. Formulae such as 10-20-10 are great. With a 5-10-10 or 10-20-20 adding some additional super phosphate (also to horse manure) will bring the mix up to what is needed. The effect will be to increase the number of blooms and blossom tips that form at the very ends of the current year's growth. The phosphorus will also help darken the color of the blossoms during the following year. Don't go crazy and think that a little is good so a lot is better. Lilacs are relatively slow growing in these northern climates, when compared to corn, and therefore require far less nutrients to meet their needs. Lilacs flower on what is called 'second year wood', meaning lilacs will set flower buds on new summer growth, but will not bloom till the following year.

## WEEDS:

Research has demonstrated that keeping the area under and around the plant free of weeds and grasses when young, will improve the growth of the plant. Even many years later those plants kept free of competing weeds while young, were noticeably more vigorous. A 3-4 inch layer of some form of organic mulch will help keep the weeds down once they are initially removed, and will conserve moisture, and add a slow feed of nutrients to the soil. Keep an area of 6 inches surrounding the base of the lilac free of mulch. Root rot or insect infestation may be a problem if the base is too moist.

## PRUNING AND SHAPING:

Left alone lilacs will develop a very symmetrical and attractive shape that is covered in blossoms each Spring. Unfortunately, the eventual size of some lilacs is too large for modern suburban yards. I always encourage urban and suburban dwellers to bring home the smaller varieties. However, even those can overgrow their designated spot. The answer in this case is a pair of pruning shears, a little knowledge, and a strong heart. Many gardeners are reluctant to prune their lilacs for many reasons. Sometimes fear is at the root of this hesitation. Their main concern is hurting the plant or not being able to enjoy blossoms the next year. Understanding the basic principles that naturally control the growth of your lilac will help you follow pruning practices that do not disrupt those natural tendencies any more than necessary to accomplish your pruning goals. Here we venture off into a little lilac plant morphology...

If you look at the stems on a mature lilac, you will notice they form a series of "Y" shapes. There are leaves and blossoms only at the tips of each of them. Below the leaves you will find opposing pairs of little bumps on each side of the stem. These bumps are actually dormant leaf buds. Even though you cannot see them easily on the older wood, those dormant leaf bud cells are present all the way down the branches of the lilac, to the ground and even below the ground to some extent. As such they act as a potential backup of possible growth sites in case you happen to back over your plant with a riding mower.

What keeps these growth cells dormant is a hormone-like chemical produced in the leaves at the top of each stem. This chemical flows downward and suppresses the growth of the leaf buds below, keeping them dormant. Cutting off the top cluster of leaves stops production of the growth-regulating chemical and some of the buds below will begin to break their dormancy during the growing season. This allows the plant to continue making food through the summer months by photosynthesis when the leaves grow in after pruning. Because of this if you are going to prune it is best to prune right after the big bloom when the blooms have finished blooming, and yet before they go to seed. We don't want the lilac putting energy into making seed, this is wasted energy and has been shown to impair the next year's blossoms. So you will want to at least dead-head your dead blossoms at this time. As well, it is the perfect time to prune. Cutting any later in the season and you may be pruning off blossoms that have set on branches already for next year.

Another vital process going on in your lilac is the transportation of water and nutrients up the stems to the plant above. The leaves also produce nutrients that are transported down the stem to the roots. If the flow of fluids is lost for any reason, the stem usually dies back to the next joint below. The leaves on the remaining stem will still sustain that vital flow of fluids, but the overall amount of growth suppressing chemicals in the main stem below will be reduced, thereby allowing some lower level dormant buds to grow.

By applying this information, you are better able to predict the effect your cut will have on that particular area of the plant. This serves to reduce our anxiety to a point where we can squeeze the handles on the pruning shears. Knowing what to expect can also serve to focus our attention to the first signs of bud growth and bring reassurance that all is still going well.

It also helps to make a distinction between pruning and shaping. Pruning is a process intended to reduce the growth rate of a plant by removing large amounts of material. Shaping however, is intended to spur the growth rate of a plant by removing the minimum amount of material.

It is generally recommended that for the first five or seven years you not prune your lilac. The goal is to get it as big as possible with heavy flower shows. Every green leaf on the plant is a chemical factory working to make the lilac bigger and happier. Pick off a leaf on the plant and we reduce the amount of nutrients being stored in the root system for next year's production of leaves and flowers.

Commercial nursery workers give periodic little haircuts to young plants to make them bushier. The new owner needs to continue this practice by snipping off the growing tip of any shoot that is starting to get out of proportion to the other shoots. Snipping off the top leaves on a few branches will eliminate the growth-regulating hormone for that branch and the plant will develop side shoots. Always leave some leaves below, the plant will fill in the bare spots with enough sun. By July 1 in upstate NY early growth is usually complete and has plenty of time to mature and 'harden off' before cold weather.

For older long overdue prunings on bushes that may be very overgrown, the best time to prune is right after blooming. You can do one or more of several things...First prune any dead or damaged branches and see what is left. Next thin the mass of suckers and transplant some into pots to move around the property or to give away to friends. The third strategy to pruning is very difficult to stomach. It involves pruning out any old branches at the base that are 4 or more inches in diameter, taking one third of them each year for three consecutive years. I personally don't do this although it is in all the books as a successful practice. I find the bush looks terrible this way and in an exhibit garden I cannot tolerate that. Sometimes I just flat top the lilac with my chain saw on a pole, giving it a stout little V shape, and bringing the next season's blossoms down to eye level. Even though these trees were planted 12 feet apart 35 years ago, they are crowding in places. I have to trim the sides of each bush so the mower can get between the bushes. also serving to round it out so it looks nice. The lilacs can really handle just about any thoughtful pruning tactic, I have learned, although it may take a couple of years for blossoms to fully return. Given all the right conditions of water, soil pH, drainage and sun, they will most likely survive and thrive again. Plant it forward....