



Alfalfa: the Alpha Additive for Rose Growers

by Joe Truskot, Master Rosarian

For many years, consulting rosarians have extolled the benefits of dumping a double-handful of alfalfa pellets in spring on top of every rose planted in our gardens. Happily, it's not just garden lore. The combination of alfalfa and the slightly acidic rain has definite growth-enhancing benefits for roses. This addition of nutrients comes at a time when, thanks to our winter pruning, the bushes are coming out of our forced dormancy and responding to more sunshine.

The addition of alfalfa increases the enzymatic function of the roots which results in the overall improvement of a rose's basic functions: photosynthesis and glucose production. With improvement in these areas, the plants absorb more sunlight and produce more glucose. The plants then send more sugar to the rhizosphere in the soil via the root system. That's where the growth, respiration, and nutrient exchange take place – the more sugar in the soil, the more food for

microorganisms. The busier the microorganisms become, the more organic material is broken down into the nutrients the plant needs to grow.

Because alfalfa enhances the overall functioning of the rose bush, it then speeds up the transportation rate of these now accessible nutrients to cells throughout the bush – more food, more growth. The now fully-fed cells are large, producing bigger leaves and more of them, thus further expanding photosynthesis. All this leads to stronger canes and fully developed, brighter flowers – and plenty more of both.

In addition, every morsel of an alfalfa pellet is organic and will break down rather quickly in the soil. Alfalfa contains a significant amount of nitrogen, mostly in a form that needs time to transform into a plant-edible nutrient – nitrate nitrogen. We need healthy microorganisms to do this for us. Warming soil temperatures and longer days expedite this process.

In the meantime, if you have sandy soil, organic material will help you maintain a more regulated moisture content. If your soil is heavy clay, organic material (rice hulls, nut shells) and sand or crushed rock, will increase the amount of air circulating in the soil.

Alfalfa pellets are an abundant and relatively inexpensive source of organic material. The pellets are easy to apply, free from weed seeds or insect eggs, and readily available. I saw a sack at our local grocery store in the pet aisle. And, no, the addition of rabbit food to a rose garden, does not increase bunnies hopping along the garden trail. Alfalfa quickly swells, breaks down, and forms an unattractive cow pie which is easily broken apart with water from a hose.

The active ingredient in alfalfa pellets and in the looser alfalfa meal is a waxy alcohol called triacontanol. It was identified in the 1930s in the cuticle of alfalfa seeds. It is also found in beeswax. Because triacontanol is a growth stimulant, it rapidly increases the number of basal breaks in grafted roses. If the pellets are applied directly onto the bud union, it keeps that often barky and dried-up area moist, facilitating new basal growth. New canes growing from the bud union are harbingers of many flowers to come for several more seasons – our ultimate aim as rose growers.

In its commercial form, triacontanol has been tested on many different row crops with mostly positive results, although quantities and timing are still being explored. It can now be synthetically produced.

In addition, triacontanol has been proven to add a degree of salt-tolerance to many plants. In India, it has improved the salt tolerance of hot pepper plants – a particularly sensitive species and an important crop in the

Punjab. This salt-tolerant attribute of triacontonol may explain why adding more alfalfa to the roses around Labor Day serves as a tonic, counteracting a summer of watering roses with more alkaline leaning ground water which can raise the pH level. It may also benefit many roses' propensity for a lush repeat fall bloom.

So whether you are new to rose growing or an experienced rosarian, don't skip this important addition to your annual garden regime.

By the way, I wrote this article while munching on a tuna sandwich on oat bread piled high with alfalfa sprouts – a great combination of flavors and textures – and I didn't think at all about how much triacontonol I just ate and what benefits my body might derive from it.

Happy Gardening.

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