

Dear Dr. Fill



I've been adding more and more roses to my garden and while they're pretty for a while, they don't look as spectacular as so many that I see in other gardens. I've seen on several local gardening sites that I should be burying banana peels under them to give them potassium so they'll bloom more. I know that there are lots of myths out there that should be ignored, but I've learned that the potassium in fertilizers helps plants survive tough winters so I'm thinking that maybe this one is worth doing. Who doesn't want more blooms on their roses! I do fertilize my roses with a product that says it is rose fertilizer, but I'm not sure how much potassium it has. I'd appreciate your thoughts on this and any tips you can offer me to keep my roses blooming well all summer long.

Sincerely,
Rose Lover

A



Dear Rose Lover

There is possibly no other hobby that is as riddled with myths as gardening. Despite all evidence to the contrary, there are still gardeners who insist that we need to wait until the full moon in June to plant our garden, even though we know that the phase of the moon has absolutely no influence whatsoever on our weather. Others will insist that organic plant based pesticides are always safer than synthetic chemical ones (when some of the

deadliest poisons on our planet are organic plant based toxins) or that ants are on peony blossoms because the peony can't open without their help (when they are really there to drink the sweet nectar). The list of myths and bad advice goes on and on. As you said, some of the advice is harmless - following it may not harm plants at all, but it won't do them any good.

But there is one myth in particular that has been around for years, and seems to be going around a lot right now on the internet. It tells us that if want nice roses, we should bury a banana in the planting hole. I have no idea why they just recommend this for roses! If it's good for roses, wouldn't it be great to use on all your flowering plants? They also claim that if our houseplants are looking a bit sickly, we need to boil up some banana peels and pour the cooled banana water over our plants. The new version on the internet now is that we need to dry the banana skins until they're black, grind them up into a powder, and add that to our soil. After all, they say, the banana is "high in potassium" and plants love potassium. This is one of those myths that it's easy to believe because we do know that potassium is the K in the NPK fertilizer formula and that a higher ratio of potassium can indeed make some plants healthier. It helps improve drought resistance and makes the cell walls of the plants stronger.

But there's one thing we sometimes forget to ask. When we say that bananas are "high" in potassium, what exactly does that mean? Higher than what? So before you start drying out your banana peels - and having a kitchen full of fruit flies - read on!

Many of these blogs on the internet say that the NPK of bananas is around 0-25-42. Any high school chemistry student knows that the number zero for nitrogen is not possible in any living plant organism. That student will also tell you that plants are typically around 80% water. A grade 6 math student should know that if a banana is 80% water, it can't be 42% potassium. So are bananas really high in potassium? Not really. They certainly do have more than some plants but they also have less than many - like avocados, sweet potatoes, spinach, and even watermelon. Putting a banana peel in your soil likely won't harm your rose, but it won't affect how well it grows or blooms. You're better off tossing the peel in the compost pile where it can break down and provide organic material for your soil. But some go on to say that if you did not place a banana under your rose, you should dig around the roots and place some peels there now. That actually CAN harm your roses as they certainly don't want their roots disturbed.

That said, roses do love to be fed. To perform their best, they need a continuous source of

nutrients throughout the growing season. This helps them bloom more AND they are better able to withstand insect and disease problems.

As you likely know, the primary nutrients that all plants need are nitrogen (N), phosphorus (P) and potassium (K).

Nitrogen encourages healthy, vigorous leaf growth. Since a rose's ability to make flowers resides in its leaves, healthy foliage results in more flowers. Too much nitrogen will result in too much foliage and fewer blooms, while not enough nitrogen results in yellow leaves, stunted growth and smaller blooms.

Phosphorus promotes healthy root development and abundant flower production. A shortage of phosphorous can result in leaf drop, weak flower stems, and buds that won't open. So if we're going to be burying anything, why wouldn't the claim be that we should bury things that are high in phosphorous? Animal organs are very high in phosphorous but the internet doesn't recommend that we bury cow livers and hearts under our roses! Fish and seafood products are also a good source of phosphorous, but luckily we don't have to bury the fish - we can just buy fertilizer made from fish by-products.

Potassium, (potash), helps roses recover when stressed by insect and disease damage, or by extreme weather conditions. Lack of potassium can result in yellow leaf margins, weak

flower stems and poorly developed buds.

Other nutrients: In order to thrive, roses also need micronutrients including calcium, magnesium, sulfur, boron, copper, iron, manganese, and zinc. Using a fish based fertilizer product along with your compost is one of the best ways to be sure that your roses are getting all of the nutrients they need.

If you are planting a new rose this year, be sure that you add lots of rich organic matter to the planting hole. The Canadian Rose Society stresses that we SHOULD NOT fertilize newly planted roses until after their first bloom. Then you can add some slow-release fertilizer or continue to fertilize every 3 to 4 weeks with a mild organic fertilizer such as fish emulsion. Yes, it smells bad, but only for a while, and your roses will make you forget that smell in no time. Adding full-strength fertilizers can cause root burn and leaf burn unless you are absolutely certain your roses have been constantly well watered and your leaves are fully hydrated.

If you prefer to use a synthetic fertilizer, feed your roses a bit in the early spring, and then feed again just before the peak of bloom in late June. A third application may be made in mid-July. Later applications are not recommended as plants must ripen wood before winter sets in. You don't need to pay extra for ones that say "rose food" on the label. Just look for ones with a ratio in the

range of 1-2-1. So for example, 10-29-10, 5-10-8 or 6-12-8 would all keep your roses blooming well. ALWAYS stop fertilizing 6 to 8 weeks before your average first frost date to prevent new growth from being damaged by frost.

There are also a few more chores if you want beautiful roses – but they're all worth it! Keep an eye out for aphids and just give them a good blast with a garden hose if you see a few – don't wait till you see a lot. And if you see ants on your roses, look for aphids! Ants literally "farm" aphids. Ants can produce a chemical that keeps the aphids in place until the ant is hungry and wants to dine on the aphid's honeydew! If the aphids have a chance to suck the juice from your leaves, your roses won't be what you had dreamed of. Also control black spot, or better yet, plant roses that have been bred to be highly resistant to it.

Compost promotes overall plant health, and will help your roses to be more resilient to pests and diseases. Mix into the soil at planting time, and apply a 1- to 2-inch layer each spring around the base of established rose plants.

Alfalfa is another great overall organic soil amendment, resulting in more vigorous growth and increased bloom production. Keep in mind, though, that alfalfa pellets are very attractive to dogs and raccoons, so alfalfa meal is likely a better choice, and it waters in more easily.

If sticking to a regular fertilizer schedule seems impractical, you can still grow beautiful roses by choosing low-maintenance varieties that need little or no fertilizing. Landscape roses are a simple way to add lots of colour to your garden. Unlike hybrids, these resilient plants don't require extensive fertilizing or other care. Fertilizing landscape roses is easy: simply apply a controlled release fertilizer in early spring. That's it! No need to overwork yourself with these roses.

Roses also don't tolerate drought very well. The Canadian Rose Society offers this advice. Water at the rate of 8 litres per plant once a week (more in hot weather) unless it has rained, preferably applied at ground level. Do not water in the hot sun and make sure the foliage is dry by nightfall, to avoid fungal problems. Mulching them also helps to keep moisture levels up and keeps down weeds, and roses aren't fond of competition from weeds.

Deadheading is also important. Don't let your roses start producing seed as they'll slow down and stop blooming. But in the fall, always allow the last flush of flowers on the plant to go to seed and produce hips. This signals the rose that it's time to begin entering dormancy.

The bottom line is that while some roses ARE fussy and demand a lot of your attention, there are lots of BEAUTIFUL roses that are actually quite easy to care for and will tolerate a bit of neglect! For the least amount of

fuss and worry, you can always rely on the Canadian bred Explorer and Parkland roses which have become international successes. They are bred in Manitoba and are able to take everything our worst winters can throw at them. You can find lots of forms and colours, but colour is actually the trickiest one. Very hardy roses are almost always pink. Hardy reds are harder to find, and yellows are next to impossible – but not impossible. There's a weakness gene that comes with the yellowness but some good yellow roses have been bred to be a bit tougher.

The artist series of Canadian bred roses contains some great choices that were bred to thrive in Canada. **Bill Reid** is a compact shrub rose with single, yellow frilly blooms. It is extremely hardy; one of the few hardy yellow roses. Another rose in this series is the **campfire rose**. It's the one that everyone wants to know the name of when they see it for the first time. Campfire is an ever-blooming, medium size shrub rose that is hardy across Canada. Its many flowers are a mix of red, yellow and pink, all on the bush at the same time. **Emily Carr** from this series is a gorgeous red rose.

Knock Out Roses are another great choice that are showing up in local nurseries. This line of roses leads rose sales world-wide. They are disease resistant and compact and bloom

throughout the entire summer. The original knockout roses were all single roses, but there are now fully double ones.

I'll end with one last piece of advice about avoiding black spot on roses, as it's the main complaint of gardeners who grow roses. Black spot is caused by a fungus and is by far, the most common disease that ruins the look of your roses. For new gardeners who aren't familiar with it, it's very well named! It causes nasty black spots on the leaves and the leaves begin to turn yellow.

The disease does not kill the plant outright, but over time, the loss of leaves can weaken the plant making it more susceptible to other stresses and winter damage. It tends to be worse during cool rainy summers and not so bad in hot dry summers. The problem is that once you have it, it is VERY hard to really get rid of it. The fungus remains in the soil all winter and will show up again next year.

The easiest solution is to dig up roses that are constantly infected and replace them with new ones that are highly resistant to it. If that isn't an option, always remove diseased leaves as soon as you see them. Don't allow them to fall on the ground and remain there. Don't add them to your compost bin unless you are certain that the compost from that bin will never be used in the future around other roses.

Above all, keep the leaves on your roses dry. The fungal spores need a wet

surface to germinate and cause infection. Do not use overhead watering, or if you do, water early in the day so the foliage is dry by nighttime. It also helps to prune plants to allow more air circulation so even after a rain, the leaves will dry faster.

There are fungicidal sprays that work quite well. They will NOT cure infected leaves, but if applied regularly, will prevent infection of new leaves. Read the label carefully and be sure that it lists black spot as one of the fungus diseases that it can control. Most fungicides need to be applied every 7-14 days and reapplied after it rains.

Hopefully some of these tips will have you growing roses that will be the envy of your whole neighbourhood – and will prevent fruit flies in your kitchen from all those bananas that you were planning to bury!

Happy Gardening!
Dr. Fill