

Bark Inversion Tutorial

Par Joe Real

Here's a step by step bark inversion procedure. Feel free to share this tutorial. The bark inversion will improve the size and flavor of your fruits while keeping your tree dwarf for a long time. Do this procedure once every four years and you wouldn't need to prune your tree that much. This will restrict the food delivery to the root system, concentrating the food into fruits, and thus the tree remain small and yet very productive. It will also enhance early fruit bearing.

Just like any surgery, this comes with risks. It could kill the tree if you are not using clean tools. Strongly recommend that you disinfect your tools with 10% laundry bleach solution, or 70% alcohol, or hydrogen peroxide and wipe them dry before attempting the operation. Also don't do this when it is windy, stormy or rainy when infection rates are high.

Here's a Calamansi grown from seed. It's been five years now, and still it hasn't bloomed. So I am trying bark inversion to keep this tree small and induce it to bloom next year. Bark inversion results in bigger fruits and also better flavor.



Ideally, you should do the bark inversion on the main trunk and as comfortably low as possible. I could have done this lower on the main trunk, but the demo picture won't be good. So I did it at the level that would be good for comfortable picture taking.



You would need a tape, be it masking tape, scotch tape. Ideally, I would use 1/2" wide tape, but could not find it, oh well, I can try using this 3/4" tape. The smaller the tape, the less risky it is for the tree to get killed, but the smaller will be the effect of inversion. You can start with smaller tape, maybe 1/4" to 1/2" masking tape that you can find. Or you can cut down the tape to size.



Wrap the tape around the trunk as neatly as you can, meaning, it should form one circular band around the trunk, and should meet end to end. Wrap it neatly so that the bands meet at one level.



Then with a marking pen, mark the tape with up arrows to indicate the original position of the tape band.



Using the tape as a guide, score the edges of the tape. That is, press a sharp knife all around the trunk, following the tape. Press the knife so that it cuts the bark and stops at the hard wood below the bark. You should be able to feel it.



Then score the band vertically, or make a vertical slit or cut, just press hard enough to stop at the wood below the bark.



Using the bark lifter of your grafting knife, lift the bark, starting at one side.



Continue lifting the ring of bark at the other side.



This is the ring of bark taken out from around the main trunk.



Next, invert the bark, not inside out, but turn it around upside down. The arrows that you marked should now be upside down.



Place the ring of bark around the trunk where taken, but this time the arrows should be pointing down. It is normal that the ring of bark would no longer fit, as there is a gap, due to shrinkage. But that is not a problem, just put the ring of bark back upside down.



Now cover with grafting tape.



Then secure it with wide rubber band.



Then cover the rubber band with the grafting tape. The bark inversion is done! That's how simple it is. Do this when the bark is slipping such as during the growth flushes of the tree.



My bark inverted Calamondin has bloomed for the first time ever! Bark inversion truly works!!!



Can you see the bloom near the bottom left at the base of the new growth flush? The yellowing and spots on the leaves are carryover effects of cold temperature and off-season rains (produces rust). Kumquats and their hybrids, including the Calamondin, tend to become yellow during the winter months especially if you dip near or below freezing temperature. It is like having all sorts of deficiencies, but there is no problem with the soil. All the nutrients are there, and there is nothing you can do about it except heat up the air around the tree. The yellowing helps the tree minimize chilling injuries during the winter, it is an ecological adaptation and that is why kumquats and their hybrids are often cold hardier than oranges. Lemons that are adapted to cold hardy places develop yellowing during the colder months too and no amount of fertilizer would make them green during the winter. Many citrus experts have seldom discussed the effects of cold temperatures on symptoms of deficiencies and they themselves misdiagnose these keen observations only citrus aficionados with passion are able to relate. Come end of summer to early fall, these leaves would be healthy looking and very green.



The inverted bark has healed well.



I checked the tree today, March 13, 2016. The bark healed really well and it has big leaves and fruits as spring time approaches!



The fruits are quite big. Would you believe that these are the third batch of fruits already? My calamondin has become ever bearing!



My Calamansi (Calamondin) has become ever blooming and ever bearing, with minor pauses in between. Already you can see tiny fruitlets of the 4th batch of fruits. These ready to use fruits are the third batch already.



Aloha Consing Phaklides's bark inversion performed on a 6-year old fruitless Calamondin grown from seed.



Cleanly done bark inversion by Aloha Consing Phaklides.



Aloha Consing Phaklides’s 6-year old fruitless seedling Calamondin.



Aloha Consing Phaklides's Calamondin in bloom, just a month after bark inversion! It should even be more productive next year with bigger fruits!



It is now 2019, 4 years after the first bark inversion, and the tree continues to produce big Calamondin fruits year round. I'll perform another bark inversion procedure on this tree soon to keep it small and productive.





