

# Horticulture Column

BERNIE PETERSON

2410 Stanford Street

Cocoa, Florida 32926 USA

Bernard.Peterson@gte.net

**Q.** We have a foxtail palm, *Wodyetia bifurcata*, planted in a prominent spot in our retail nursery. It grew well for several years but began to decline about six months ago. About two months ago, we noticed that the lower part of the trunk was oozing a thick sap (Fig. 1) and now it really looks like it is dying. Although this palm is planted in well drained soil, it is situated in a nursery area with containerized plants that receive irrigation on a nightly basis, so perhaps the soil is too wet. We would like to plant another if we can avoid losing it again. Kevin Riley, Florida.

**A.** To begin, I must confess that this palm was planted at the nursery where I am employed, and that I am the one who planted it. Close examination of the lower trunk of the dying palm and a little research led my colleagues and me to conclude that it was infested with ambrosia beetles. A wire 1 mm in diameter could be inserted into the tunnels or galleries made by these insects. Also, we were able to see the plugs of chewed up trunk material called frass that they push out of their galleries. In Florida, ambrosia beetles are members of the genus *Platypus*. Similar insects are found in many parts of the world, mostly in warmer regions. Ambrosia beetles can be economically important pests of recently cut, untreated timber, but they usually do not infest dried lumber or healthy living trees. Likewise with palms, they seek trees that are already dying from root, trunk or bud rot diseases. It might be possible to kill ambrosia beetles by spraying the trunk at the entrances to their galleries, but this action would not save the palm. The insects do not eat the wood of the palm trunk; rather, they feed on a fungus that they introduce and grow within the galleries they have created. This fungus is not pathogenic and is different from the fungus that may have been killing the palm.

After removing our dying foxtail palm we sawed the lower portion of the trunk into halves, lengthwise. This task was easier than it sounds since the trunk was nearly rotted through. We were fairly certain that the actual cause of death was a trunk-rotting fungal disease. By covering and sealing one of the trunk sections in a large

plastic bag for four days we could see the fluffy white mycelium of the fungus advancing on the last bit of unrotted tissue near the base of the trunk. This disease could be any of several that can cause the death of a palm by rotting through its trunk.

In our experience, plants are often made susceptible to disease by one or more cultural conditions. Often these conditions are different than those which the species, in this case *Wodyetia bifurcata*, would experience in its natural habitat. The daily irrigation that our foxtail palm received was likely a contributing factor to its disease susceptibility, but a quick look at the base of the trunk revealed the simple and avoidable mistake that led to its death. In Figure 4 the lower finger indicates the point on the trunk that would be considered the correct planting depth, while the upper finger shows the actual level of the soil and mulch around the palm. Our palm was about 10 cm (4 in.) too deep. Particles clinging to the trunk showed that the palm was originally planted 5 cm too deep in the sandy soil, and another 5 cm of gravel mulch were added later.

We hope this palm "post mortem" will help others avoid making the serious mistake of planting too deeply or of piling mulch up close to the trunks of their palms. It is a difficult lesson to learn by trial and error. Our foxtail palm was small when it was planted. It grew very nicely for several years and increased in size rapidly. It is very easy in such a case to blame the palm's death on insects or disease rather than improper planting and maintenance. We plan to plant another foxtail palm in our nursery, but in a place which is not so heavily irrigated.

**Q.** At the base of our four-trunked *Chamaerops humilis* there are suckers (new shoots). Is it possible to divide and transplant them successfully, even though there are no roots on them? Sam Edwards, California.

**A.** Theoretically, I suppose, it is possible to separate successfully and grow an offshoot or sucker from any multi-trunked palm. The degree of difficulty might range from that of *Pinanga coronata*,



1 (left). An early indication of trouble with this *Wodyetia bifurcata* was the presence of thick, gummy sap on the lower trunk. 2 (right). The lower finger indicates the base of the trunk which is the correct planting depth; the upper finger shows how deep the palm actually was, a difference of 10 cm (4 in.).

which is very easy to divide, to *Allagoptera arenaria*, which I have tried to divide a few times but always without success. Other familiar palms that one may propagate by division include species of *Areca*, *Dypsis*, *Cyrtostachys* and *Chamaedorea*. Since there may be some risk to the parent plant, you should consider carefully whether it is worth trying to divide a rare or valuable palm.

Those species that produce additional stems some distance from the parent plant by means of stolons, such *Chamaedorea stolonifera*, are especially easy to divide. Simply cut the stolon, dig up the young plant and plant it in a pot. In this case, there is little risk to the parent, and chances for success are good.

It will be a difficult task to make a new plant from an unrooted sucker of *C. humilis*, but with time and patience perhaps you can do it. It will not be possible simply to remove and plant the unrooted sucker; it must be encouraged to produce some roots first. To begin, select a sucker the diameter at the base of which is close to that of a mature trunk, then carefully dig to try to expose the point at which the sucker is connected to the parent

plant. Tools that will be helpful aside from a shovel might include a brush to sweep away soil, a hand trowel for digging in tight spots and a water hose to rinse dirt away from the area where the sucker joins the parent plant. Once this area is located and exposed use a thin saw to cut halfway through the point of connection. You may wish to dust this cut area with sulfur to prevent fungal diseases. Replace the soil around the base of the partially severed sucker. In about six weeks you can carefully re-excavate the base of the sucker to see if any roots have formed, being careful not to injure them. If a number of roots are present, use a saw to cut through the remainder of the connection between parent plant and sucker and once again replace the soil. Wait another six weeks or so for additional roots to form and then dig and remove the plant, again, trying to avoid injuring the roots. It would be best to establish the new plant in a container before planting it in a permanent site. This really is a lot of work to make a new plant of such a common species. You may wish to purchase a young *C. humilis* instead.