IPS INTERNATIONAL Palm Society

MAY 2015

NEWSLETTER

ROOTS

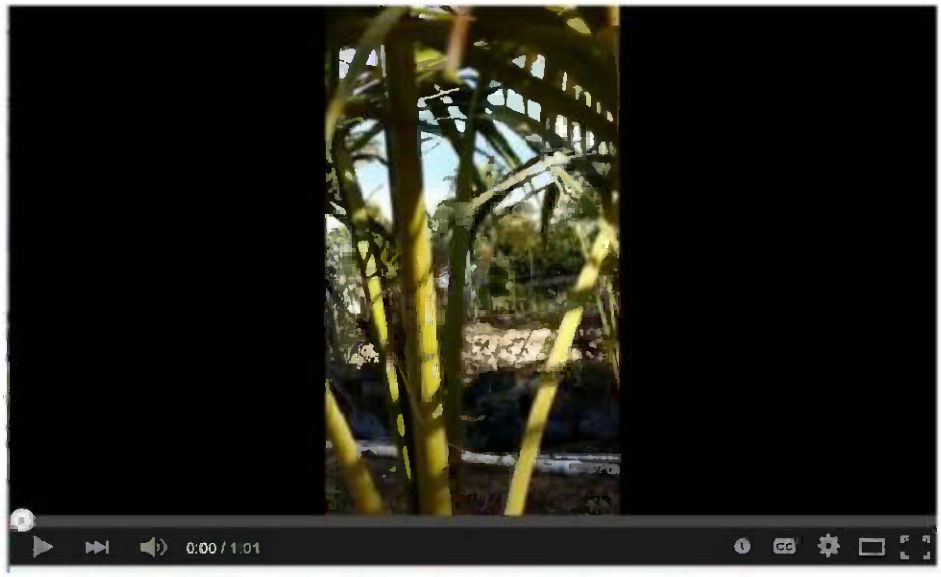
by Ken Johnson

I have transplanted palms for a living for 30 years. It is hard to get more involved in palm roots than I have been. Here are some tricks to help you transplant by getting to know your roots better.

We all know that roots function to take up water and nutrients and we all know that by removing all the roots we will kill the palm. So how do you transplant a palm when you will need to cut 90% of its roots off?

What happens to roots and indeed to the entire palm when you cut so many roots? The answer depends on the species of palm but in general, non-scientific terms, the palm sulks and its roots go into emergency mode. What is emergency mode? Well many things happen at once. The roots start to heal, the palm gets a signal to produce more roots, the amount of water taken up decreases drastically, leaves are shut down and start to brown, and even the trunk starts to shrink.

So how do you get the palm to live? Trick it! If you cut "a bunch" of roots but not all, guess what



CLICK TO VIEW YouTube video snippet illustrating root growth

happens? That's right, the palm thinks it's in emergency mode but it is a false signal. It still has most of its roots functioning and it sends out the signal to make more roots. As you know nothing happens fast in a palm but this is truly fast mode. Root production is naturally stimulated after root shock IF it has enough resources (in this case most of its roots) still intact.

After just a few weeks most palms will show you their new roots. If you gently dig around looking for them you will also find that the cut roots have healed and that they are branching behind the cuts. This is true in all palms including *Sabal* (no matter what you have heard).

The timing of all this is palm specific, and the palm will tell you when to cut more just by the way it reacts to the first cut. If your palm sulks a lot from the first cut then wait for it to get perky again before the next cut, and don't cut as much as the first time. If the palm looks chipper after the first cut then you can cut more the second time, and you can cut a bit faster. If you add water throughout this period it is better.

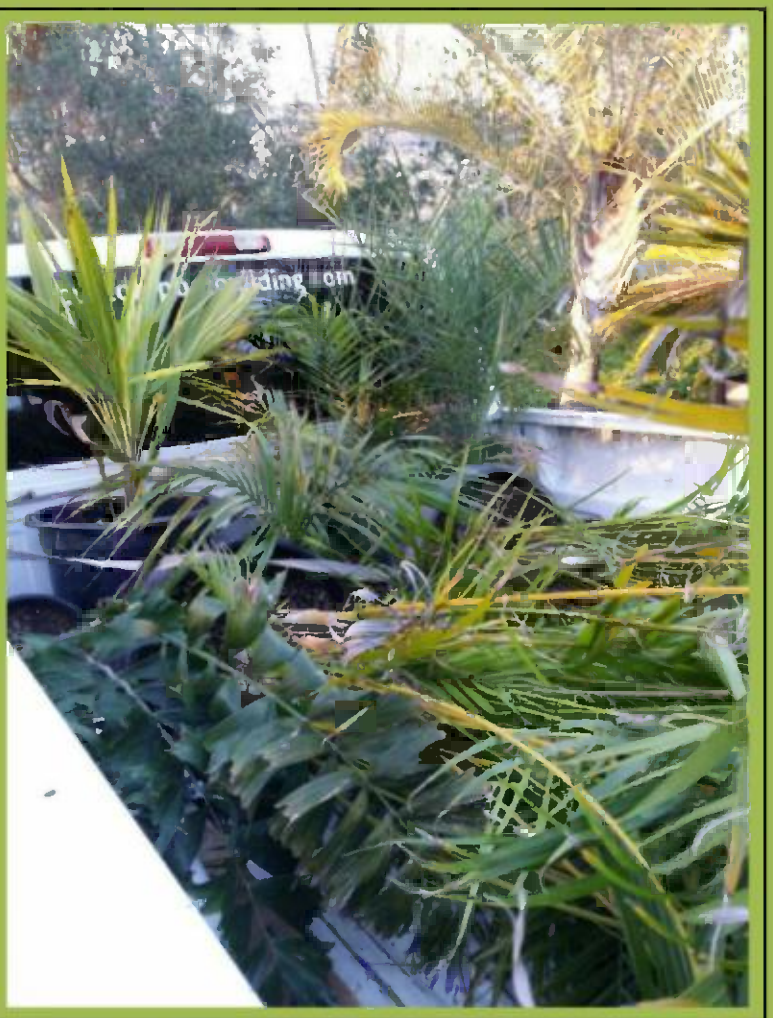
On the day you cut the last roots you will also shift the palm to its new home. It will have a "ball" full of new roots and a full set of leaves (minus one or two) and be ready to grow with vigor the second you put new soil around it!

Below: These roots are growing from an exposed *Sabal mauritiiformis* root ball.
Lower photo: This *Veitchia* picture shows how roots can be produced from the base and actually "peel" the fibers of the trunk right off the palm!

Below right: Notice how different *Copernicia* roots look compared to the *Sabal* roots. I will tell more about *Copernicia* in roots on our new website.

Watch for more informative notes about ROOTS from Ken Johnson when the new IPS website goes live!

PICTORIAL: PALM-STUFFED VEHICLES



Top row: Photos by Daniel Lopez, Coachella Valley, California. Bottom left, Konstantinos Giannopoulos, Athens, Greece; right photo by Philippe Clochard of Switzerland and Sri Lanka.

Above left, Rick Hawkins, Jupiter, Florida; above right, George Peavey, South Kona, Hawaii.

Bo-Göran Lundkvist at Kapoho Palms, Hawaii; Kim Cyr with Suchin Marcus at Floribunda Palms & Exotics, Hawaii; bottom photo by Nickolas Quinn, Fallbrook, California.

How slow plants make ridiculous seeds

Coco de mer palms go extravagant on a tight budget

BY SUSAN MILIUS 1:10PM, MAY 1, 2015

HUGE SEEDS The iconic shape of a coco-de-mer nut that intrigues a traveler (shown) won't show up on a tree. It's evident only once the outer green husk is stripped off.

NIALL CORBET

From **ScienceNews**, Magazine of the Society for Science & the Public

The secret behind the world's largest seed and its sexually extravagant plant is good gutters.

A prodigy among those seeds can weigh as much as 18 kilograms, about the weight of a 4-year-old boy. Yet the plant that outdoes the rest of the botanical world in the heft of its seed manages with below-poverty nutrition. Coco-de-mer palms (*Lodoicea maldivica*) are native to two islands in the Seychelles that have starved, rocky soil.

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