EXTENSION
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# PRUNING PALM TREES

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**Prune only dead or dying fronds (brown or yellow)**

Pruning is one of the most misunderstood aspects of palm culture. Correctly pruning any plant or tree can benefit the growth and health of the plant. Maintained correctly, palms are low maintenance trees. For some reason, some people believe that they can indiscriminately hack at palms, including the periodic removal of most or nearly all of the fronds (leaves), several times each year, and not harm the tree. Palms are not an exception to good pruning rules. Poor pruning techniques will harm any plants or trees, including palms There is a misconception that the more a palm is pruned, the faster it will grow. **This is not true**. Many palm specialists discourage over-pruning except when transplanting certain species. Others simply recommend avoiding pruning as much as possible (www.broward.org.dio5200.htm).

**Incorrect Pruning**


All green fronds produce the food needed to grow properly, producing a healthy palm. The reduction of the green leaf area reduces food production and in turn, the health and growth of the palm is placed in jeopardy. The more green leaves any plant has the more growth that will be produced. The only true plant food is that which the plant makes. What is purchased at stores is not plant, tree or palm food, even if the package says "plant food." It is fertilizer (nutrients), used by the plants with water and sunlight to make plant, tree or palm food.

Under ideal growing conditions it has been found that date palms (*Phoenix dactylifera*) can have between 120 to 180 fronds, each growing up to 15 feet long. Fronds are known to live from 5 to 8 years. This includes leaf primordia in the bud according to the article cited. (Ken Pfalzgraf 2000). Many experts report Washingtonia palms have an average of 30 green fronds. A correctly pruned palm should have an oval or circular silhouette.

## REASONS TO PRUNE PALMS

1. To remove dead or dying fronds that might harbor insect pests, such as roaches and scorpions.

2. To remove hiding places for other pests such as rats.

3. To remove potential fire hazards in urban areas near homes and other buildings.

4. For safety reasons; so that views from driveways, sidewalks and safety signs are clear. Blocked views are most often caused by planting palms in the wrong places.

5. To prevent damage to buildings and walls during high winds. Planting palms too close to a building can cause damage to the structure. Palms don't need to be protected from high winds by pruning. After Hurricane Andrew, the few trees left standing were palms. Most had few if any fronds left from the high winds, but they were still standing.

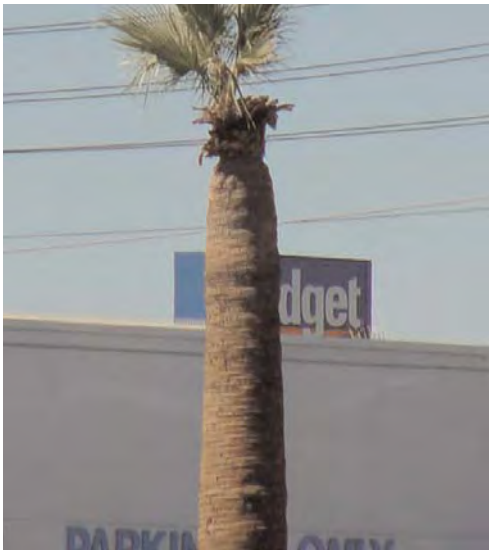
6. When palms are field dug and transplanted bare root, half of the fronds on most species can be removed. This reduces the transpiration rate and facilitates handling and shipping by taking up less room on the truck. Some experts believe that after planting, the fronds of field dug palms should be untied when new root growth is noted (Pfalzgraf 1999). The University of Florida has found that Sabal species survive transplanting better if all fronds are removed. (Broschat 1991). However, this is an exception, true only for this genus.

7. To remove fruit and seeds. Some palms produce seeds that germinate in the landscape or fruit that makes a mess and smells bad when it drops. Most palms do not produce either fronds or fruit large enough to cause damage when falling. Removing flowers or developing fruit can free up starch that benefits developing fronds, roots and storage reserves.

**Seeds**

## REASONS TO KEEP PRUNING TO A MINIMUM

1. Removing most of the leaves (fronds) yearly or more frequently weakens the palm and slows its growth. Mature fronds provide food for developing fronds, flowers, fruit, roots and storage reserves in the trunk (Banjerth 89 in Pfalzgraf 2000).



**Poor Pruning Practices Create a Pencil Neck Effect of the Trunk**

2. When green fronds are removed, the nutrients they would have produced are lost to the rest of the palm. Some nutrients move from older leaves to newer leaves as they die. With potassium (and to lesser extent other nutrients deficiency, ) removal of older green or chlorotic leaves exacerbates deficiency. Nutrient deficiencies also cause narrowing of the trunk and decline in the size of the fronds. The palm must now obtain its potassium from younger leaves in the canopy. These previously green and healthy leaves will then become chlorotic and unsightly. Regular removal of potassium deficient leaves can eventually kill the palm. (Broschat 1994).

3. Palms must store sufficient reserves of starch in their trunks that can be mobilized to restore fronds in the event that a palm experiences some type of stress such as fire, frost or defoliation by humans. Palms must have as many green fronds as possible to produce a continuous supply of food to grow, stay healthy and build storage reserves (www.ag.arizona.edu). Research has shown the need for a 2:1 ratio between juvenile and mature fronds in some palms (Dalrymple 1994 in Pfalzgraf 2000).

4. Fronds may take 3 to 5 years to mature (Hilgeman 1951 in Pfalzgraf 2000). A large crown of leaves on a mature date palm with over 125 fronds may have taken 15 years to develop from the most juvenile frond to the most mature frond. This includes those primordial leaves in the bud that are not visible. (Pfalzgraf 2000).

5. Never prune for cosmetic purposes. Some people will prune Canary Island Date Palms (*Phoenix canariensis)* to look like a giant pineapple or will skin Fan Palms (*Washingtonia robusta/filifera*) to look like more tropical palms. Desert palms are not tropical, so it is best to accept that and not try to change them into something they are not.

6. Palms leaves are designed in a cantilever effect to facilitate survival in high winds. When too many fronds are removed, the palm can be more easily damaged (Pfalzgraf 2000). Immature fronds that have been robbed of the support and protection of mature fronds are more susceptible to wind damage, desiccation and structural failure.

7. Pruning green leaves from palms also adds to the waste load at landfills (Pfalzgraf 2000).

8. Research has shown that mature fronds are those found below the current year's blooms. When pruning, leave at least two rows of mature fronds, preferably more (Hilgeman 1951 in Pfalzgraf 2000).*

9. Never take off more leaves in one year than are produced during that time. Research done by E. J. H. Corner (1966) indicates that each species of palms has a set number of green live fronds with the same number of developing fronds inside the bud area of the palm. As a new frond emerges, the oldest frond dies. The age that a frond may attain will be determined by many factors including size of the mature palm, number of fronds produced, etc. The key factor is that only the palm knows when a frond needs to be pruned off, and that is when it is dying (yellow or brown). Unlike hardwood trees, palms cannot increase their canopy size with more leaves, like an oak or maple tree. As each new leaf opens, it will take the place of a dying leaf. The palm knows the exact amount of fronds needed for a healthy tree. When the palm reaches its ultimate height, the fronds will decrease in size and the tree will decline and die. Few cultivated palms die of old age. It is more likely they will die of cultivation or landscape mistakes.

*This is true only for species in which inflorescences emerge from within the canopy. It is not true for crown shaft palms, such as this A*rchontophoenix*.

# SIMPLE RULES FOR PRUNING PALMS

1. If the frond is yellow, brown or broken prune it off.

2. Remove loose petioles or boots by hand. If they don't pull off, leave them on.

**(This also adds to landfill load and waste problems.)**

**Petioles or Boots**

3. Remove flower and fruit stalks. The formation of fruit and seed takes strength away from the palm unnecessarily. When mature, fruits may provide food for pests such as rodents and birds. Palms such as date palms, produce infertile (where there are no male trees near by) or fertile fruit that will later drop, make a mess or stain concrete surfaces. The seeds of some palms such as Fan Palms (*Washingtonia robusta/filifera*) will germinate in undesired areas of the landscape

**Seeds**

**Seedlings**

4. Some clumping palms may need to be thinned out or new growth pruned off if the palm is getting too big for the space in which it is growing (http://hort.ifas.ufl.edu/woody/pruning/palms.htm).

**Pruned Off Trunk**

5. Some palms like *the* Canary Island Date Palm (*Phoenix canariensis*),have spiny armament that can be dangerous if people come in contact with them. These spines should be removed when the palm is still small and if it is near walkways or driveways.

6. Never top palms. Most palms grown in southern Nevada are single-trunked, having only one growing point. Once that growing point or bud is damaged or killed so is the entire palm. Research in southern Nevada has shown that buds of Washingtonia and Phoenix palms are 18 to 24 inches down from the emergent point (or very top of the trunk). There is never any good reason to top a palm. Some people mistakenly think that topping will shorten a palm that has grown too tall or that it will make the palm branch like a regular tree. Both cases are false. A trunk can be removed from clumping palms such as the Chamaerops humilis or Mediterranean palms, and the rest of the palm will live (see removing trunks). However, topping is never an option.

7. When tall palms need pruning, hire a professional who uses ladders, cherry pickers (hydraulic lifts), and non-invasive climbing gear. In the perfect world, palms would not be planted where there is no access for the proper pruning equipment that is required to prune them when they become tall. Understand that climbing palm trees with spikes is dangerous. Homeowners who hire uninsured climbers that use spikes to climb palm trees may be opening themselves up to a liability if the climber falls from the tree. Spikes damage the trunks of palm trees, and may spread diseases from tree to tree when not sterilized.

8. Always use clean pruning equipment, including saws and pruning sheers. Chainsaws are difficult to clean and sterilize and should not be used to prune fronds from palms. Others recommend immersion of pruning saws in a 50/50 solution of bleach and water for 5 minutes. (Pfalzgraf 2000). Cleaning equipment in this manner will help prevent the spread of diseases such as Fusarium in date palms (*Phoenix dactylifera*).

9. When pruning once or twice a year, remove all dead or dying fronds. Never take off more green fronds than can be produced in a single year.

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