

Experience with Hardy Palms in Georgia

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For the past thirty-five years I have had the joy and satisfaction of raising the hardier palms. It is my hope that some of my experience in raising and observing these palms in the Atlanta area will prove of value to the many palm lovers who live in the same or similar climatic zones and that they too may derive some of the same pleasure I have known.

My experience with palms began in the year 1924 when I, as a boy of seventeen, arrived in Wilmington, North Carolina after having pedaled a bicycle 465 miles from Atlanta, Georgia. There I saw my first palm — a *Sabal Palmetto*. To me it looked exotic and I wondered, even at that age, how a palm could grow so far north as the Carolinas. I had always associated palms with far away South Pacific islands, white sand beaches, warm sunshine and romance. But it was here that *my* romance with the palms was begun.

Some few years later on my first visit to Savannah, Georgia, a friend helped me dig up a saw palmetto (*Serenoa repens*) which I brought back to Atlanta. Of course the shock of transplanting was too great and it did not survive. Still interested in palms, I later visited Miami, Florida. There I quickly discovered there was more than one species of palm!

In 1927 I married and moved back to Atlanta where my education with the hardier palms was to commence. Knowing of my love for palms, my father-in-law shipped me two good-sized coconut palms (*Cocos nucifera*). These were planted in my yard and there is no need to explain what happened to them in the first frost. It was at this point that I began to become aware of the varying degrees of hardiness in palms

and embarked upon a close association with four of them — the needle palm (*Rhapidophyllum hystrix*), the windmill palm (*Trachycarpus Fortunei*), the bush palmetto (*Sabal minor*), and the European fan palm (*Chamaerops humilis*).

The needle palm is the hardest — probably the hardest palm in the world. I acquired my first specimen from a local nursery in 1930 at a cost of \$3.50 and carried it home in a burlap bag. I have seen the needle palm growing in its natural swampy places, even in water about half the time, and many times I have had to wear rubber boots in order to get in and dig one out. The needle palm is very easy to transplant. I remember on one occasion a helper's dropping a small needle palm at the edge of a swamp. Almost bare-rooted it lay for two weeks. On my return I found it, took it home and today it is a nice healthy specimen.

All of the needle palms I have found in swamps have long stems or petioles, due to their growing in almost total shade. Many also have yellowed fronds. I have come to the conclusion that this leaf condition is due to lack of soil nutrients, because when the palms have been transplanted into my yard, fertilized and cared for, they grow into a deep green.

I found one needle palm growing in Rome, Georgia, which is in Plant Hardiness Zone 7-B. In January 1963 the temperature fell to 10° below zero (Fahrenheit) and there was no damage to this palm. I have had several letters from a palm enthusiast in Sitka, Alaska, wanting needle palm seeds, and I believe that this palm would live there. Although the mention of Alaska usually stirs thoughts of ice and snow, Sitka is



1. Entrance to Mai-Kai with unprotected needle palm, *Rhapidophyllum hystrix*.

close by Zone 8-A due to the moderating influence of the Japanese Current.

None of my needle palms had ever fruited nor borne seed until this last year when I had a bumper crop. The seeds are very peculiar: they grow right down close among the long and sharp needles, looking much like a large cluster of grapes, remaining slightly greenish until the first cold weather when they turn a light brown and develop a furry exterior. By about Christmas a faint odor can be detected when walking close to the palm. When the seeds are ripe the odor grows very pungent, similar to rotten cheese. I suppose the

seeds grow down deep in the needles so that small animals cannot easily get to them. The odor should keep them off; however, I did find some of mine chewed on, possibly by a field mouse.

I have seen many beautiful specimens of needle palms and I always stop to get the history of all I see. One thing they all have in common: all were transplanted from their natural habitat, none was purchased from a nursery. Only just recently have I learned of a few for sale by nurseries; heretofore, I had never seen any offered for sale. There now seems to be an awakening to the value of the needle palm in landscaping.



2. Needle palm on north side of Manley house.

Sabal minor, sometimes called the bush palmetto or blue palmetto, grows near us here. There is a natural stand about thirty-five miles south of me, and

it is seen in many places below Macon, Georgia, extending on to the coast. Dent Smith told me that in some places in East Texas they grow so prolifically

they are considered a nuisance. They are always seen in swamps, low places and sometimes in pastures. Actually thousands of these neat, squat palms grow where they are covered much of their life by about three to four inches of water above ground.

They never grow very large in swamps — only to a height of about three feet with about four to six fronds. Taken out of their natural surroundings and moved to a place in the sun, fertilized and cared for, they become a handsome and very neat, clean palm. The main drawback to anyone raising this palm is the long wait, as they are really slow growers. Even after getting established with a good root system, they grow only about two fronds per year. These fronds are stiff and erect, deep green on top and powdery blue underneath.

The flower-stalk or seed-stem grows high above the fronds and when the fruit begins to form it bends over, sometimes almost touching the ground. Last year I collected a market-basketful of seeds from two large *Sabal minor* growing in a garden in Madison, Georgia.

I have tried fertilizing the *Sabal minor* in the fall, applying heavy layers of chicken manure to one and not fertilizing one nearby. Last January three below zero temperature revealed no difference in hardiness — neither palm was damaged.

The *Sabal minor* is hard to dig, having a different root system from the *Trachycarpus* or the needle palm. These palms have an underground stem resembling a large pod, similar to a giant peanut, with a small number of roots extending out from this pod. I am always careful not to injure this pod when transplanting. I dig the palms with a good-sized ball of earth, but I have also just washed off the earth and

either method seems to be allright. Actually, I have never lost a *Sabal minor* or needle palm in a transplant.

The windmill palm (*Trachycarpus Fortunei*) was really my introduction to the hardier palms. About 1930 I went on a trip eastward from Atlanta and on passing through Madison, Georgia, I noticed a tall palm. I stopped to inquire about it and was told that it was several years old, but the owner did not know the name of the palm; however, she did know the name of the nursery in Augusta where it had been purchased. I wrote the nursery and in due time received their catalog. There it was — pictured and called CHUSAN'S FORTUNE PALM. I immediately sent the \$1.75 they were asking and soon had my own palm which was planted about five feet from the house. This of course was the Chinese windmill palm (*Trachycarpus Fortunei*).

This *Trachycarpus* and the needle palm I subsequently acquired both just about exploded out of the ground. They were never fertilized, but many years later I came to the conclusion that the fast growth was directly due to the filled earth which had been pushed into this area along with rich black soil, leaves and red clay. I now prefer to plant all my palms in a large hole filled with rich woods-dirt, mixed with well-rotted cow manure and old leaves.

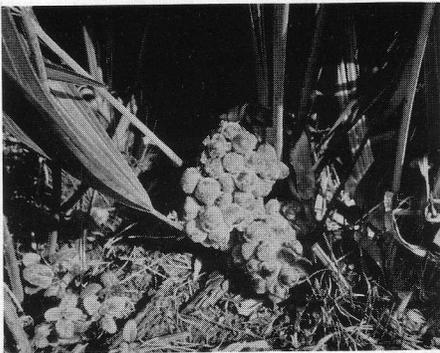
By 1950 the needle palm had grown to an enormous and beautiful clump and the windmill was about fifteen feet in height and had a beautiful crown of fronds. This was the year of what we called the "Big Freeze" The thermometer fell to two degrees (Fahrenheit) with a high, cold, dry wind blowing from the northwest. I thought this marked the end of my palm ventures, but found later that the windmill only suffered tip burn on the lower fronds.



3. Needle palm on patio.

There was no damage to the needle palm.

In 1958 this home was sold and we moved to another location in Atlanta. The two palms were moved too — my first experience in moving an object this large and heavy. The palms did not seem to suffer at all from the move, and I am sure this was due to the extra large ball of earth I took up with them.

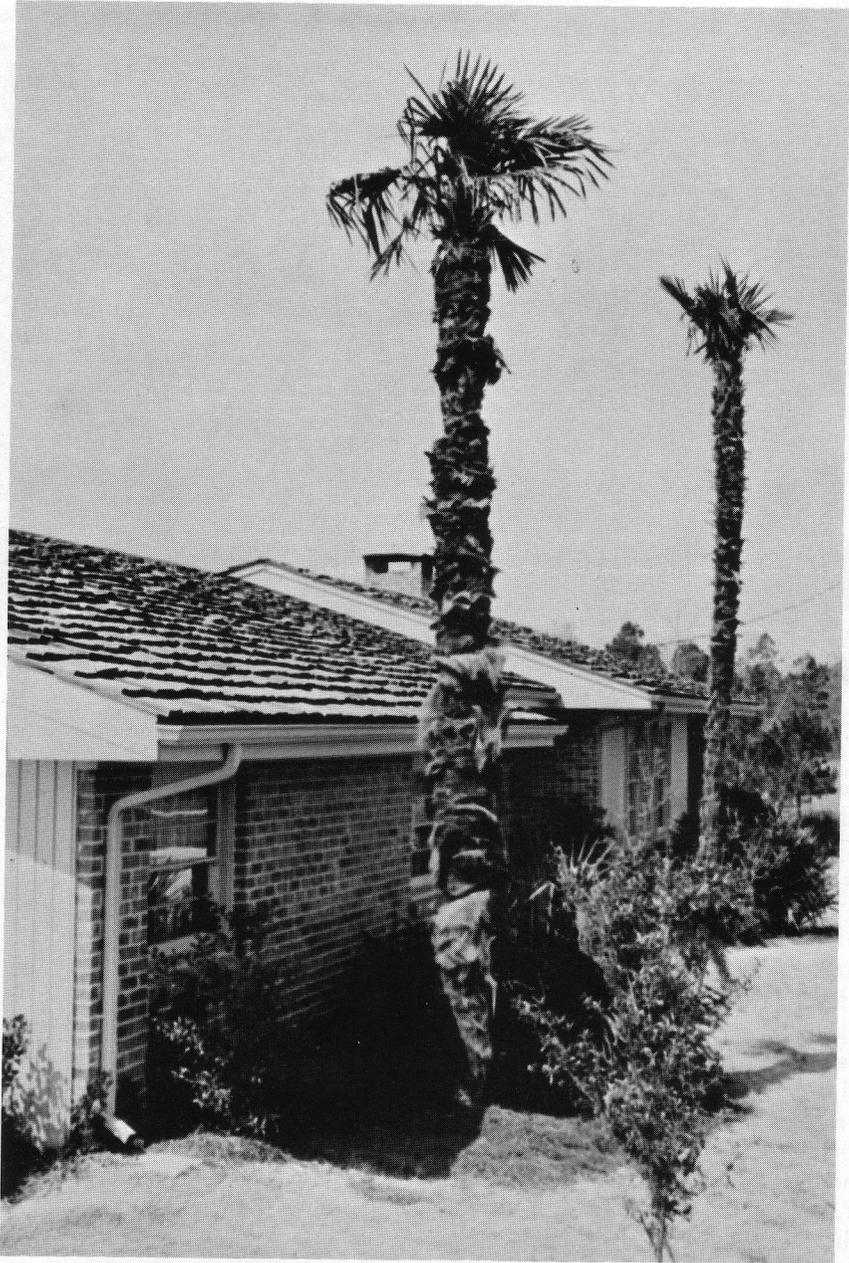


4. Fruits of *Rhapidophyllum hystrix*.

No fronds were removed, but I found out later that many dried up and had to be removed, especially on the *Trachycarpus*.

After living here for two years, we sold again and built a home on Peachtree Creek. The two palms were moved once more to the new location. But this was not their last move. Three years later we decided to move to the country thirty miles south of Atlanta, and of course the palms went too, along with hundreds of others acquired during the intervening five years.

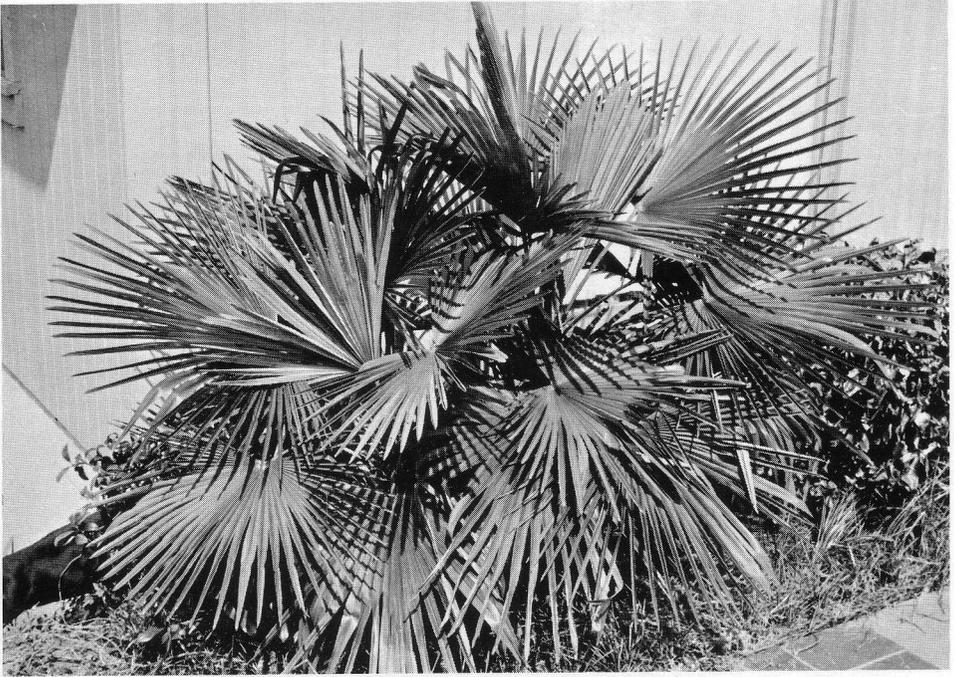
In December 1962 the temperature fell to three degrees below zero (Fahrenheit). This was the coldest I had ever seen in the Atlanta area. I lost several small *Trachycarpus*, but no damage was recorded to the needle palms or *Sabal minor*. Then just one month later the temperature fell even lower — down to six below zero. Still no damage to the needle palm and only slight frond tip



5. *Trachycarpus Fortunei* recovering from three below zero freeze.

burn to the *Sabal minor*. All the *Trachycarpus* had completely defoliated anyway in the December low of three below. I dug up many of the *Trachycarpus* thinking they were dead, when in real-

ity they possibly would have come back had I left them alone. The first winter at our present place (which we call "Mai-Kai") we had another of those three below zero nights. All the *Trachy-*



6. *Trachycarpus* one year after three below zero and complete defoliation, south or protected side of house.

carpus and *Chamaerops humilis* completely defoliated and looked dead; however, this time I did not take any of them up. In the spring, about April, they began to show life and today they have completely recovered with full crowns.

I have found that when the *Trachycarpus* has been growing for several years and long enough to develop a good root system, that those standing in well-drained soil will withstand lower temperatures. This palm just does not do well in hard-packed clay, sand or poor drainage. *Sabal minor* and the needle palm, on the other hand, seem to do well in any planting except sand, even hard-packed clay, or standing water.

Many strange things happen in the observance of the hardy palms, especially watching several *Trachycarpus* all the same age: many survived zero

weather while others within five feet succumbed. In Decatur, Georgia, a suburb of Atlanta, where twenty-five tall *Trachycarpus* lined the sidewalk, only twelve remain after the disastrous six below zero of January 1963. I have noticed that the ones which survived have very stiff, erect fronds which did not droop down at the tip. I have made it my business to collect seed from these apparently hardier specimens and at this writing have here at Mai-Kai several trees ready to put out an inflorescence.

I have grown many *Trachycarpus*, planting seed in pans, directly in the ground, and in all sizes of cans. I think the most prolific planting I have ever had was in 1960 when I had a bountiful supply of seeds and simply scattered them on the ground. In about two months I had a *Trachycarpus* lawn. *Trachycarpus*, I have found, can be



7. *Trachycarpus* in patio fully recovered from freeze.

forced to grow about two feet a year by severe pruning in the late spring of each year.

In thinking of the cold tolerance of

the hardy palms, there are many factors to take into consideration. These include location or position of the palm in reference to a large body of water,



8. *Sabal minor* on patio, needle palm in background.

its site in relation to a high fence or house, or whether or not it receives protection under a canopy of trees such as pines or magnolias. Here at Mai-Kai a thermometer is installed on all four sides of the house and I have observed that temperatures may vary as much as twenty degrees.

I have seen many peculiar situations as to the weather and the growing of palms. Snow on many palms, even the Washingtonias, does no damage; actually it is a nice warm blanket. We had a three-inch snow this February. I did not arrive home until late, and all the needle palms were weighed down to the ground as well as the *Chamaerops* and *Sabal minor*. A good lick to the undersides of the fronds knocked the snow off. The tall *Trachycarpus* only needed to have the trunk jarred several times to dislodge their snow. I have found that more damage will occur from those exceedingly dry and cold

winds from the northwest. When transpiration occurs at a higher rate than a palm can replace its moisture, there will be frond burn. Usually this will show up in the lower fronds.

I have tried 0-14-14 fertilizer on my palms, but have come to the conclusion that this procedure, which may be fine for woody plants in hardening them up for a frost, is downright detrimental to palms. I have used just about all the recommended fertilizers for my palms, but have concluded that organic fertilizer is the best for the hardy palms.

Today at Mai-Kai Acres we are enjoying living with all our beautiful palms. I used to try to get all the fringe area palms to grow here, such as *Washingtonia robusta*, *Sabal Palmetto*, and *Butia capitata*, but finally gave up and have now only the four — the needle palm, *Sabal minor*, *Trachycarpus* and *Chamaerops humilis*.