

PHILLIPINE WOODS

by the

SOUTHERN CALIFORNIA LUMBER SEASONING ASSOCIATION

There are over 2,000 different Phillipine woods. All of them different in many respects. Of this vast variety there are only a relative few that are commercially imported to the U. S. However, it should be remembered that in almost every shipment of Phillipine Mahogany there is apt to be many other species mixed into the load. This should be watched for. We can not begin to explain or tell all of them or even a few, but have picked out several of the most common to use as examples.

CLASSIFICATIONS FOR DRYING

Phillipine hardwoods and Mahogany are broken down into two general classifications: Light Red and Dark Red. The kiln operator for drying purposes further classifies these two into three more sub-classifications: Soft Texture, Medium Texture and Hard Texture. These types vary in texture and hardness depending upon the location that lumber came from. The softer textures come from the Southern Islands and the textures becoming harder the farther North with the hardest textures from the most Northerly Islands. Each specie will be found in all locations. In order to classify this wood it is necessary to know the location from which the stock came from. Only the very skilled can tell by looking at the boards whether it is hard texture or soft texture. Examples of the light red types are: White Lauan, Bagtican, Almon, Mayapis. Examples of the dark red are: Red Lauan, Tangile, Taiong. The most difficult to kiln dry of these woods are Bagtican and Mayapis.

DRYING

Sticking: 4/4 and thinner stock should have stickers on 9" centers for the first 4 or 5 courses, then every 18".

5/4 and thicker stock should have stickers on 18" centers.

Air Drying: In air drying all Phillipine hardwoods and Mahogany, covers should be used to protect the top layers of boards. This will help prevent twisting and degrade. It is also wise to use as much weight as possible on top of the loads. This will help to prevent the warping and twisting.

Soft texture - Air drying not necessary for this classification dries readily.

Medium texture - Air drying is helpful, but not necessary.

Hard texture - ABSOLUTELY NECESSARY to air dry down to fibre saturation point before placing into the kiln.

Kiln Drying: Soft texture - Soft textured Phillipine Mahogany dries readily.

Medium texture - Use mild schedule. Degrade will persist if rushed or too high temperatures are used.

Hard texture - Use low temperature even though the stock has been air dried down to fibre saturation point. This stock will honeycomb, collapse and end and face check considerably. It is very difficult to kiln dry and must be watched at all times. Dries very slowly.

Note: Mayapis and Bagtican are the most difficult to kiln dry. If drying Mayapis any stock thicker than 5/5 will honeycomb with high temperatures.

Attached are some sample schedules.

The following schedules have been used successfully in Southern California for a number of years. However, it should be noted that each kiln should work out their own schedules depending upon their air velocity, temperatures and humidity control.

Do Not Use These Schedules Without First Experimenting With Them.

<u>M. C.</u>	<u>D. B.</u>	<u>W. B.</u>	<u>Relative Humidity</u>	<u>F. M. C.</u>
4/4 - 5/4 Soft Texture				
Above 30%	150	135	66%	9.6%
20% - 30%	155	135	58%	8.0%
20% - 10%	165	140	51%	6.7%
Final drying	165	135	44%	5.7%
Conditioning	165	152	74%	10.4%
6/4 - 8/4 Soft Texture				
Above 30%	150	138	70%	10.3%
20% - 30%	155	140	67%	9.5%
10% - 20%	160	140	58%	8.0%
Final drying	165	140	51%	6.7%
Conditioning	165	155	78%	11.4%
4/4 - 5/4 Medium Texture				
Above 30%	150	138	72%	10.7%
20% - 30%	155	140	69%	9.8%
10% - 20%	165	140	51%	6.7%
Final drying	165	135	44%	5.7%
Conditioning	165	153	74%	10.3%
6/4 - 8/4 Medium Texture				
Above 30%	145	136	71%	10.8%
20% - 30%	150	136	68%	9.9%
10% - 20%	160	140	58%	8.0%
Final drying	160	135	50%	6.7%
Conditioning	160	150	77%	11.5%
4/4 - 5/4 Hard Texture				
Above 30%	140	132	79%	13.2%
20% - 30%	145	132	69%	10.3%
10% - 20%	150	130	57%	8.0%
Final drying	155	130	49%	6.8%
Conditioning	155	143	72%	10.6%
6/4 - 8/4 Hard Texture				
Above 30%	135	129	84%	14.8%
20% - 30%	140	130	75%	12.0%
10% - 20%	150	137	70%	10.3%
Final Drying	150	130	57%	8.0%
Conditioning	150	139	74%	11.2%

In the drying of Phillipine Mahogany it is imperative that samples be selected from the species of Bagtican, Mayapis and Tangile as the other species will dry quite readily.

Below is another set of drying schedules. It will be noted the difference between them showing the difference in kilns and the need for each kiln's own schedules:

<u>M. C.</u>	<u>D. B.</u>	<u>W. B.</u>
Soft texture light and dark red Phillipine Mahogany		
4/4 and 5/4		
60% and above	140	130
40% to 30%	150	135
30% to 20%	160	135
20% to 8%	180	135
Conditioning	150	145
Medium texture light and dark red Phillipine Mahogany		
4/4 and 5/4		
60% and above	135	128
40% to 30%	140	130
30% to 20%	150	135
20% to 15%	160	135
15% to 8%	180	135
Conditioning	150	145
Hard texture light and dark red Phillipine Mahogany		
4/4 and 5/4		
30% and above	80	70
30% to 25%	110	90
25% to 20%	130	120
20% to 15%	150	130
15% to 8%	180	135
Conditioning	150	145