

Insights, Strategies & Pitfalls that Pallet Users Should Know

Special Report: ***Pallet Profile Weekly & Recycle Record***

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BLOCK vs. Stringer Pallet

This special report is designed to be a tool that you can use to discuss the recent Costco mandate and other factors involved in deciding how to respond to block pallet requests by retailers as well as review the pros and cons of pallet rental and purchase options. It is available free of charge as a special report bonus for active subscribers to either the *Pallet Profile* or *Recycle Record*. If you would like to find out more about either of these publications, please contact Jeff McBee at 804-550-0323 or email jeff@palletenterprise.com.

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All copyrights reserved by the publisher. Please direct any copyright clearance requests or questions not covered herein to Industrial Reporting Inc. at chaille@ireporting.com or by calling 804-550-0323. The staff of Industrial Reporting hopes this report will be a useful tool in working with pallet and lumber customers.

The complete report can be downloaded from the following link: www.palletprofile.com/costcoreport.pdf

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I. Executive Summary

Earlier this year, Costco Wholesale Corp., a major club store retailer, announced that as of January 1, 2011, it will cease to accept stringer-style GMA pallets and is requiring only block-style pallets. Costco suggested iGPS, PECO, and CHEP block pallets in North America as the primary options for Costco suppliers.

Costco stated in its new *Structural Packaging Specifications*, "Pallets not rented from iGPS, PECO, or CHEP must meet equivalent structural and performance standards, are not returned or exchanged, and must be pre-approved. We do not accept pallet exchange deliveries (we do not return or exchange pallets for the ones being delivered)."

While Costco does not prohibit white-wood block GMA-style pallets, it has pushed suppliers toward rental options believing that the costs will be lower. For odd-sized loads, Costco's specifications include a section entitled "Purpose-Built Pallets." Costco approves purpose-built pallets only when it is not possible to transport or handle certain products safely and efficiently on pallets compliant with its general delivery requirements.

Leaders in the white-wood pallet industry have been working on a response by developing the Pallet Industry Management System (PIMS), a high quality block pallet pool managed by independent wood packaging companies collaborating through a national cooperative coalition. The initial thrust behind PIMS has come from a number of large pallet companies, especially members of the National Wooden Pallet & Container Association (NWPCA).

While PIMS pallets are not specifically mentioned on



Costco's specification, a picture of a white-wood block pallet along with the NWPCA logo for a purchased pallet is listed along side of the iGPS, PECO, and CHEP pallet offerings. Getting an effective white-wood block pool is more critical now than ever. This is needed if the industry is going to answer the market challenges that lie ahead. PIMS may be a good solution if the economics of the system can be proven and customer support come on line

Costco has been trying to make the switch to block pallets for a number of years. Some suppliers have indicated that Costco seems more determined than ever to make this effort work. A Costco spokesperson recently commented that Costco remains firm to its January 2011 deadline requiring loads be shipped on block pallets except for specialized/oversized products. Suppliers that ship on non-compliant pallets will face fines. Currently, Costco plans to charge a \$50 fee to re-palletize loads onto compliant pallets.

Plus, Costco will charge an additional \$50 per hour for labor involved in this process. Depending on the number of pallets utilized, costs to shippers could mount quickly.

The warehouse retailer faces a more difficult situation in Canada where only a limited number of block pallets exist. The two dominant pool operators in Canada (CHEP and CPC) both offer stringer pallets. Costco may have to make some deadline concessions in Canada, but the retailer has yet to say if it will do so.

Costco's initiative may be only one lone retailer taking a stand, or it could be the beginning of a paradigm shift. A lot of this depends on how the Costco experiment goes and the perceived benefit to other retailers and product manufacturers.

This special report covers the following: the Costco mandate, the proposed PIMS program, benefits and pitfalls of pallet rental, block pallets 101 and more.

II. The Costco Mandate

Explanation of Costco's new specification and its move toward requiring suppliers to ship on only block-style pallets.

For a number of years, Costco has floated the idea of requiring its suppliers to ship on block pallets. Many retailers prefer block pallets citing ease of handling, durability, four-way entry and other advantages.

Earlier this year, Costco Wholesale Corp., a major club store retailer, announced that as of January 1, 2011, it will cease to accept stringer-style GMA pallets and is requiring only block-style pallets except for some pre-approved loads. Costco suggested iGPS, PECO, and CHEP block pallets in North America as the primary options for Costco suppliers.

Costco's new spec calls for a 48x40, double-faced, non-reversible, full four-way, multiple-use, machine built, new, perimeter base block pallet. It is to be made from new, not recycled, standard and better softwood, kiln-dried lumber. Both leading top edges should have at least two butted boards; the outermost lead boards must be 5.5" wide. The top must contain at least one other 5.5" wide deck board, and all the remaining top deck boards must be at least 3.5" wide.

The blocks are to be 5" to 5.5" wide and 3.5" tall. The six outer blocks are to be 7.5" long, and the three inner blocks will be 3.75" long. Nothing is said about lumber species, but the spec suggests that they are softwood. Also, nothing is said about the possibility of composite blocks, which are common in Europe.

Pallets and packaging materials that are shipped internationally must be treated, marked and documented in compliance with ISPM 15 regulations. Pallets can



have no markings except those required by regulations such as ISPM 15.

Certainly the white-wood pallet as it is now designated by Costco has to be new, virtually eliminating used pallets. The higher grade recycled 48x40 GMA style pallets that Costco and other club stores have preferred in the past are often called Club Grade, Sam's grade, premium #1s or warehouse/club grade pallets. It appears that these pallets do not meet the new Costco white-wood non-rental general pallet specification. Hardwood GMA style pallets, whether new or used, are not mentioned on this new spec. Costco's new spec focuses on designing pallets using PDS.

Costco indicates that its general delivery, non-rental pallets are not to be returned or exchanged. They must be a better value than renting and must be pre-approved by Costco. According to Costco, the inability to get

consistent quality from white-wood suppliers with the handling efficiency benefits of block pallets has led the retailer to develop its new policy.

A number of contacts have reported some push-back by Costco suppliers concerned about getting tied up in pallet rental. Once customers move to rental, it is hard to switch back due to the length of rental contracts and other factors. Shippers get caught in a rental system, and they have a difficult time getting out of it. This is especially true for smaller accounts that don't effectively negotiate terms and contracts with pallet rental suppliers.

The bottom line is that it appears the new Costco non-rental general delivery pallet spec is essentially the same as the CHEP and PECO block pallet specification; specifically Costco says this spec has to be equivalent to rental pallets.

III. Proposed PIMS Program

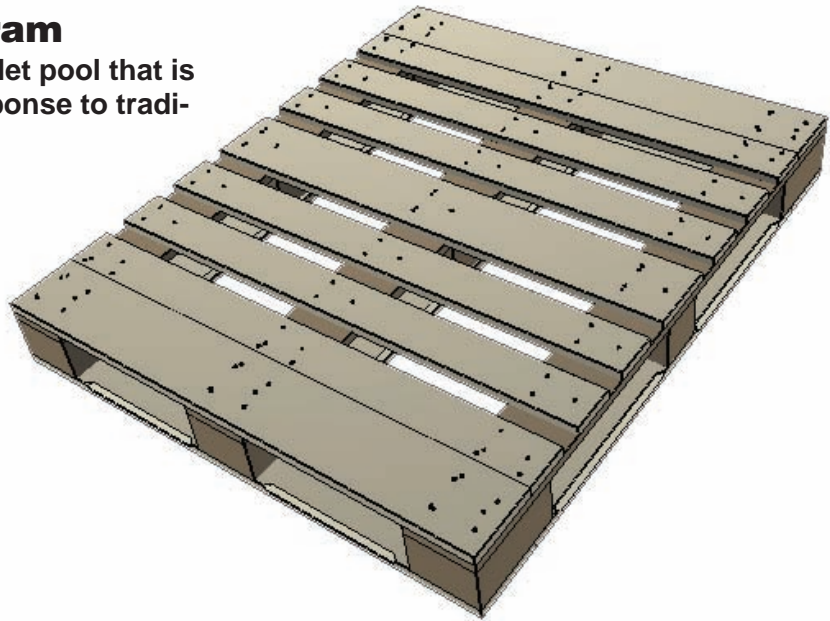
Review of the white-wood block pallet pool that is currently being developed as a response to traditional rental options.

Will the white-wood pallet industry develop an answer to pallet rental and nationally managed pallet pools in the United States? There have been a few efforts to organize a general industry pool in the past. But none of them ever really got off the ground or had enough end user support to be successful. Now, things may be different as the thought of a block pallet mandate by Costco and the growth of pallet rental has created a scenario where an industry cooperative pool just might work this time.

A number of the most progressive pallet companies in the country, including many members of the National Wooden Pallet and Container Association (NWPCA), have come together to develop the Pallet Industry Management System (PIMS), a high quality block pallet managed by independent wood packaging companies collaborating through a national cooperative coalition.

One of the major drivers is Costco's recent push for block pallets. Beginning January 1, 2011, all loads shipped into Costco must be on approved block pallets unless the product does not lend itself to a standard 48x40 block pallet. Costco's new specification calls for suppliers to use one of the three rental pallet companies (CHEP, PECO, or iGPS) or purpose-built wooden block pallets that have been pre-approved by Costco.

As was explained by the PIMS executive group to the industry, "These narrow new requirements could debilitate many independent wood pallet compa-



nies who currently provide pallets to Costco suppliers. A solution for meeting not only the Costco requirements, but many other changing supply chain demands, is the PIMS concept."

According to the PIMS executive group, Costco has reviewed the PIMS block pallet specification and stated that "the PIMS specification will be accepted provided the pallet has the official PIMS marking."

A Costco spokesperson confirmed that the PIMS standard meets its standard. However, Costco has yet to sign on as a participant to the PIMS program although the retailer did not rule out doing this in the future. The Costco spokesperson said that it remains open to working with its suppliers and would certainly not oppose working with PIMS if a large volume of suppliers decided that this startup cooperative is the best way to go.

It appears that Costco does not want to be the driver of PIMS. Yet at the same point, the retailer has not closed the door on it and seems willing to stand by and let suppliers decide if they want to back it. Now is the time for PIMS to develop alliances with pallet

users that want an option beside the big three pallet rental companies. If this happens, PIMS could indeed become a strong viable option.

Currently, all three major rental companies are working to gain white-wood customers. It appears that recently PECO has gained the most ground followed by iGPS and then CHEP. Some shippers refuse to participate in traditional pallet rental. These companies are the prime targets for PIMS.

Costco continues to buy some wood block pallets for its own use and could begin acquiring PIMS pallets if it decides to become an official program participant.

PIMS to Meet with Costco

Members of the PIMS executive group are set to meet with decision-makers at Costco later this month (December 2010). The major sticking point has been convincing Costco to agree to sort and return PIMS-marked pallets.

Up to this point, Costco has not been willing to add another sort to the highly automated process taking place in its distribu-

tion centers. Costco is one of the few major retailers that handles its own pallet sortation. Even more unique, Costco uses automated equipment instead of more manual sortation tactics.

Costco has said that it will not add a separate sort for PIMS unless the fledgling organization can provide a substantial business reason why it should do so. PIMS plans to unveil a new business proposal at an upcoming meeting. Costco has approved the PIMS pallet design as meeting its requirements. But that is a far cry from adding PIMS to its list of preferred vendors and agreeing to sort and return PIMS-marked pallets.

Currently, the PIMS executive group is working to develop inspection criteria, sign on network partners, select an inspection agency, attract pallet customers, and get the first official pallets built as quickly as possible. That is a lot to finish in a short period of time.

According to a PIMS spokesperson, a number of Costco suppliers are looking at PIMS as a viable option due to concerns related to signing up with an existing rental pool provider. Of course, that all depends on what shakes out of the meeting between PIMS and Costco in December as well as the ability of this developing organization to deliver on its promises.

PIMS Standard

The non-profit corporation behind PIMS has officially launched and has developed a pallet specification designed to compete against existing pallet rental options. An interim executive group has been developed to shepherd the launch. When a complete PIMS Board is created it will be comprised of not only pallet manufacturers and recy-

Table 1

PDS Designed PIMS Pallet Specifications

Overview

48 x 40 in. (1219 x 1016 mm)
 Reusable/multiple-use
 Double-face non-reversible
 Full 4-way
 Machine-built
 Top-deck construction: Deckboard + stringerboard
 Bottom-deck construction: Perimeter-base
 Bottom butted board parallel to pallet length

Materials

Kiln-dried (19% MC) southern yellow pine (SYP), Douglas-fir or radiata pine

- 11/16 in. thick deckboards
 - 5.5 in. wide top leadboards, top center boards and bottom boards, all other boards are 3.5 in. wide
 - 5.0 in. wide stringerboards (same width as blocks)
- At least standard grade for lumber components.*

Solid lumber or wood-based composite blocks

- 3.5 in. tall
- 5.0 in. wide (same width as stringerboards)
- 7.5 in. long outer blocks, 3.75 in. long inner blocks

Strength Properties

Safe working load capacity of 3250 lbs. based on the following conditions:

- Supporting a uniformly distributed load
- Racks spanning 34 in. (850 mm) across the width
- 49.5% load weight COV and 2.15 maximum to average load ratio

Source: PIMS Executive Group

clers, but also inspection agencies, end users, transporters, and retailers.

PIMS is open to any company willing to comply with program standards as established by the Board of Directors. Unlike private pools, PIMS is a free market system. Participating pallet buyers can purchase from any PIMS provider they wish. This allows them to look for the consistent high-quality PIMS pallet at the best price and finest service.

Participating pallet manufacturers and recyclers must agree to 3rd party inspections to main-

tain quality standards. The PIMS system includes block pallet manufacturers, recyclers that recover and repair existing PIMS pallets, pallet users, receivers, and the PIMS management organization. A small executive team will oversee the PIMS standard, 3rd party certification, and the logistics operations.

Created using the NWPCA Pallet Design System© (PDS), the PIMS pallet specifications are listed in Table 1.

For more information on PIMS, email info@PIMSPallet.com or visit www.pimspallet.com.

IV. Benefits and Pitfalls of Pallet Rental

Analysis of issues to consider when reviewing options to the Costco mandate.

The primary option that Costco has encouraged its suppliers to choose is one of three major pallet rental companies – CHEP, PECO and iGPS. Each of these companies has its pluses and minuses as does the general concept of pallet rental compared to buying white wood or the new PIMS option.

Here's a quick analysis of the three major U.S. rental pool providers:

CHEP USA

Key Advantages: Size, scope, ability to supply just-in-time pallets where ever you need them. CHEP is the largest pooler with around 100 million pallets in the United States. CHEP has recently spent millions to improve the quality of its pool and is known for its ability to optimize its logistics network. CHEP is well known in the marketplace with a proven system. CHEP will allow customers to ship outside of its network for a higher fee.



Disadvantages: Caters to larger customers and has developed a reputation for nickel-and-diming clients with various fees. Surprise fees can make your bill go higher than first anticipated. Generally, has inferior quality pallets compared to its rivals. But an extensive quality control problem has helped CHEP gain ground over the past two years.

iGPS

Key Advantages: Unique, all-plastic pool with embedded RFID tags compared to the CHEP and PECO pools that use wooden pallets. RFID allows more accurate billing compared to batch mode tracking employed by other poolers. iGPS claims its system eliminates dubious lost pallet charges. Lighter weight pallet, plastic construction reduces product damage caused by loose boards, protruding nails, etc. iGPS entered the market in 2006 and has offered competitive pricing even though it rents a much more expensive pallet than either of its rivals.



Disadvantages: Much smaller pool than CHEP. This can make it difficult to economically source pallets to all parts of a customer's supply chain. Rental pricing dynamics suggest that iGPS will have to increase prices over next couple of years to cover higher cost of its rental fleet. Its current economic model does not appear viable once it runs out of venture capital. iGPS has experienced problems with pallet deflection for heavier loads over 2,000 lbs. and uses a controversial flame retardant that could be banned by the government. Plastic pallets are known for loads slipping off the top deck in certain situations. iGPS lacks the extensive retrieval and recovery system that CHEP has in place.

PECO

Key Advantages: Known for working with smaller companies and smaller product channels. It has a reputation for policing to a tighter specification and providing a better quality wooden pallet than CHEP although the pallet designs are very similar. PECO bills one flat rate per pallet, rather than an issue fee and a rental rate. This offers more straight-forward billing with fewer surprises. These rates are recalibrated on regular basis, whereas CHEP and iGPS bills are based on actual dwell time of the pallet asset.



Disadvantages: Much smaller pool than CHEP, PECO does not have the pool size or logistics network to service every large customer. PECO is more restrictive on shipping outside of its network than either CHEP or iGPS.

IV. Benefits and Pitfalls of Pallet Rental

Analysis of issues to consider when reviewing options to the Costco mandate.

Pallet Rental Comparisons with White Wood (As It Exists Today)

General Benefits of Rental Systems

- 1.) Higher quality pallet – Generally you can get a higher quality pallet at a lower initial price by rental compared to buying white wood. This may change though if the white-wood market develops a viable alternative on a large scale, such as PIMS.
- 2.) Widespread acceptance in the U.S. grocery supply chain, including advocacy from some major retailers. Some pallet users ship on rental pallets to obtain special price concessions from the retailer.
- 3.) Large pool of similar pallets maintained to tighter specifications than general exchange pallets.
- 4.) IT systems designed to help track shipments and reconcile bills. Some of the larger white-wood companies offer these services.
- 5.) Outsource pallet management to a third party with expertise in this area. The same thing can be done by working with an innovative white-wood company.
- 6.) Various rental pallets offer different design advantages. Generally, the biggest design advantage over the white-wood market is the widespread affinity for block pallets by retailers.
- 7.) The product manufacturer only rents the pallet and does not own it, which means the product manufacturer doesn't have to worry about its asset once it leaves to another party in the supply chain as long as the shipment is going within the rental network.
- 8.) Nationwide service under a single contract with one vendor. This can make pallet purchasing easier and more coordinated between facilities.

General Disadvantages of Rental Systems

- 1.) The lower initial price can be deceptive if the activity of the customer leads to lost pallet charges or other incidental expenses that can add up quickly. The real cost of a pallet rental system is actually \$7-10 per pallet load.
- 2.) The one thing to remember is that pallet rental is a self-managed program. Rental companies claim to take away pallet headaches for customers. But, in reality, they just add different ones. It can cost companies anywhere between 75 cents to a dollar or even more to hire staff to manage a relationship with a pallet rental company.
- 3.) Limited size and design options for rental pallets. White-wood pallets can be designed to meet any specific unit load requirement. Pallet companies have to ship on a very set specification when dealing with a rental pool. This can add cost into your supply chain because the most expensive aspect of a unit load is the stretch wrap and product packaging not the pallet.
- 4.) Once you get in a pallet rental system; it is hard to get out. This occurs because a shipper has to invest a lot of money to put white wood into its supply chain once it has been removed. Also, rental pallet companies are notorious for using lost equipment charges and other fees to keep customers from jumping to other options.
- 5.) Pallet rental companies have tended to favor larger clients and may not be as adept as a local pallet company in providing smaller clients with Just-In-Time delivery and other services.
- 6.) When you buy a pallet, you have an asset that you can charge the recipient for or request some type of sales concessions. When you rent a pallet, you have less control over what can be done with it.
- 7.) Local pallet suppliers are closer to your business and can offer more tailored services to meet your needs.
- 8.) Some rental providers have become known for having an arrogant attitude in the marketplace. They use contracts and corporate sophistication to negotiate deals that may serve their interests better than a customer's wishes.

IV. Benefits and Pitfalls of Pallet Rental

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Pallet Costing Analysis

In the wooden pallet market there are thousands of pallet recyclers managing local territories, and then there are the CHEP USA and PECO Pallet rental systems. Rental pallets are usually colored to identify them from a “white-wood” or non-painted pallet. CHEP paints its pallet blue while PECO uses red. iGPS offers plastic pallets embedded with RFID tags as an innovative alternative to typical wooden pallets.

Whether you buy or rent a pallet, each approach has its own benefits and hidden costs. This article will help you discover what approach may work best for you. What you think may be saving you money could actually end up costing a lot more in the long run.

The hidden cost comes in the administration of the program and the multiple variables that can derail the system. There are many aspects to a rental pallet contract that require action from the program administrator.

The issue fee is the bait. If someone came to you and offered a pallet that is accepted as a new number one GMA pallet for \$5.00, would that sound like a good deal? The answer for many purchasing managers would be,

yes. But a purchasing manager or logistical official making pallet decisions should look a little deeper to see other costs that can add up very quickly.

The daily hire fee is a pricing variable that can gradually sneak up on you and is tied directly to inventory management. For example, the cost for keeping a 940 pallet buffer is \$197 per week. This is after your issue fee and before your transfer fees. Rent is figured like this (pallet balance x product days x daily hire fee). $940 \text{ pallets} \times 7 \text{ days} = 6580 \text{ product days} \times \$.03 \text{ rental fee} = \197 . Because the CHEP invoice period is from Saturday to Sunday, have your stock as low as you can by Saturday’s close of business. For example, if you brought your buffer down to 300 pallets. Your rent for the week would be: $300 \text{ pallets} \times 7 \text{ days} = 2100 \text{ product days} \times \$.03 \text{ rental fee} = \63 . This would save you \$134 just on your buffer stock. You will need to make sure that you have a load delivered on Monday so you do not run out.

Lumber, transportation, collection and heat-treatment fees are fixed costs and will adjust depending on the market. Keep a close eye on your transfer fees. This is the charge that a pallet



rental company bills when a pallet is transferred from the product manufacturer to a wholesaler or retailer.

When it comes to transfer fees, the one thing to remember is that not all companies are a fit for a rental pallet program. Costs could vary from \$1.50 to \$12.00 per pallet, making it cheaper to buy and ship a new #1 heat-treated pallet. For example in the CHEP system, shipping to a company outside of CHEP’s network, otherwise known as a Non-participating distributor (NPD), significantly raises transfer costs. NPD fees can run \$18 to \$24 per pallet. From the pooling company’s perspective you basically lost its pallets, giving it the right to invoice you for the lost

The basic rental pricing structure is the following:

1. Issue Fee: Average price: \$5.00 per pallet
2. Daily Hire: Average price: \$.035 per day (not all contracts include daily hire fees)
3. Lumber Fee: Average price: \$.045 - \$.09 (not all contracts include lumber fees)
4. Transportation: Average price: \$190 - \$200 (depending on national fuel prices)
5. Transfer Fee: Average price: \$.15 - \$18 (depending on type of transfer and destination, may include NPD fee in this calculation)
6. Non-Participant Fee (NPD): Average price: \$8-\$18 (not all rental companies charge)
7. Heat Treating Fee: Average price: \$1.00 - \$1.90 per pallet
8. Collection Fee: Average price: \$190 - \$225 (depending on national fuel prices)

Source: Andrew Mosqueda – former CHEP employee and former industry consultant



equipment. Most brokers are considered an NPD because they do not cooperate with any of the pallet rental companies. Although brokers will most likely ship to a distributor in the rental system, you will be charged the NPD fee because you cannot account for who the pallet end user

was. Brokers are still fairly common in the produce industry.

The rental pallet industry has its place in the supply chain, but rental is not for every company. The trip cost is the real number to watch, not the issue fee. The trip cost includes all of the pricing elements combined together to

equal your real cost to use the rental pallet. In most cases your \$5.00 issue fee will turn into a \$7 - \$10 pallet, depending on how well you work the program.

By contrast, the white-wood pallet program may cost more up front. But the pallet has a value that can be passed along to others in the supply chain. Compensation for returned pallets can be the place where you make or break your white-wood pallet program. Various pallet recyclers use different scales to determine quality and price. The dealer may claim to offer a higher price for all the #1s you return, but if the recycler has a much more stringent requirement for what qualifies as a #1 pallet, you aren't getting a better deal. Consider what you are supplying and what you are getting for a trailer load of returned pallets.

At the end of the day, a purchasing manager needs to ask if he is getting the full benefit from the rental pallet program. Is your trip cost more than the cost of a #1 GMA pallet? Can you give some on quality and take a #2 pallet to reduce your costs even further?

The one thing to remember is that pallet rental is a self-managed program. Rental companies claim to take away pallet headaches for customers. But, in reality, they just add different ones.

You are responsible for ordering, reporting, reconciling, correcting, and possibly conducting your own audit. Along with the management of assets, there is management of your inventory levels and to whom you are shipping. Some companies do an excellent job and never have a problem with lost pallets. Other companies think they are okay and end up paying a large bill for lost assets.



IV. Benefits and Pitfalls of Pallet Rental

Analysis of issues to consider when reviewing options to the Costco mandate.

Pallet Rental Contract Negotiations

A key to defining the relationship between a pallet rental company and its clients is the rental contract. A basic pallet rental contract typically is comprised of several sections. This usually includes: issue fees, transfer fees, transportation rates, daily rental rates, lost equipment fees, emergency load fees, and restocking fees. In each of these areas you may be able to negotiate lower charges.

One of the things that rental companies do to attract business is create pull-through strategies using alliances with major retailers. These retailers then advocate and encourage suppliers to ship on an approved rental pallet. This is basically what has occurred with the Costco block pallet mandate.

Essentially, this tactic pulls product manufacturers onto a rental program due to customer pressure. Although this does put the pallet user on a weakened

bargaining position since it has to approach the rental company versus the other way around, there are ways to even the negotiations.

Besides using the pull through strategy, CHEP which has around 100 million pallets in its U.S. pool, may use size to keep business. PECO pallets, a much smaller pallet rental company, may try to gain a foothold by trying to take one or two lanes at a time. iGPS has offered a higher-valued asset (plastic pallet) at competitive prices to CHEP and PECO.

Pallet rental companies will use contracts to help prevent customers from prematurely jumping to another supplier. Plus, it takes a while to clean any large supply chain of a particular type of pallet.

All CHEP contracts are based on volume. As a result, CHEP, may go back to the customer and notify them of an increase in the issue fee due to the decrease in volume. Another potential reac-

tion by CHEP would be to cancel the contract and let PECO pallets supply 100% of the business. The problem is that PECO generally does not have the inventory in many regions to handle 100% of a large customer. This makes CHEP the only viable option for pallet rental in some cases. Thus, many customers stick with CHEP to avoid higher operational costs. Potential customers need to be aware of these tactics as they consider contract negotiations. It may be easier to switch to pallet rental than to maneuver among various suppliers.

The first thing to understand is how both pallet recyclers and rental pallet companies determine their basic fee structure. The issue fee will vary based on volume, which does put smaller companies at a slight disadvantage. Begin by identifying what expenses are covered in the issue fee.

Remember that pallet rental companies did not create the pallet business; they just made it a



little more complicated. Pallet rental companies have the same type of expenses as any used pallet dealer, with the exception of calculating depreciation on assets, which the pallet is considered.

One place you can negotiate is fees related to shipments outside of the rental system. Let's say that the pallet rental company adds \$.25 on every pallet issued to cover non-participating transfers. You can request a \$.15 discount in those areas where you are only shipping to receivers who are in the network. The goal is to get them to disclose how your issue fee was figured. You want specific information to figure out what goes into it and what can be negotiated.

When a rental pallet changes hands from a product manufacturer to a receiver, a pallet rental company usually charges a transfer fee. These fees can significantly increase the overall cost of a pallet rental program. This might be a good place to negotiate lower fees. The pallet rental company might have several location types it will charge in your contract. Here are a few examples and estimated transfer fees:

- Participating Distributors located in the U.S. \$0-\$1.17
- Non-Participating Distributors (NPD) in the U.S. \$1.17-\$12.00
- Participating Puerto Rico Distributors \$0-\$4.00
- Participating Alaska, Mexico, Canada Distributors \$1.17-\$15.00

Amounts will vary depending on volume to each of those locations. Be aware of all domestic and international shipments prior to signing the contract. Also, keep in mind that most brokers are considered non-participating

distributors. Because international business is increasing between U.S., Mexico, Puerto Rico, and Canada, companies should be careful not to accept high transfer fees based on current business. However, if you are shipping 80% domestic you are in a position to ask for a lower transfer fee to U.S. distributors, possibly even no transfer fee. If you do ship into non-participating distributors (NPDs), you may be able to negotiate a percentage of your shipments be permitted to ship into those locations without high transfer fees. A current common trend is 80/20, 80% being domestic participating distributors.

Daily pallet rent is a variable in the contract that is directly tied to inventory management and can literally cost a company hundreds of dollars per week. Because the CHEP invoice period is from Sunday to Saturday, have your stock as low as you can by close of business on Saturday to cut costs. That is the best way to cut your daily pallet rental costs.

The transfer fees are where your contract negotiations will directly affect your overall costs. The above sample rate structure is one example of how mismanagement of a pallet rental program can result in high transfer fees. If a receiver is not a participant on the rental program, it is easier to ship on a new GMA pallet.

Here are a few other areas to consider negotiating into a rental contract. Consider inserting an acceptable damage ratio on all loads. For example, consider adding that each load cannot exceed 5% damaged pallets. So on a load of 570 pallets, no more than 29 pallets can be defective. In many cases contracts are negotiated at a discounted rate, to be evaluated six months to one

year after the contract is signed.

This report covers several areas where your contract negotiations with a rental pallet company can either cost or save you thousands. The lesson here is two-fold. Read the contract and fight to negotiate beneficial terms from the beginning. Don't believe the line that the contract is standard language that everybody signs. Some parts are negotiable. Second, make sure your program administrator is familiar with what is expected and the consequences if the program is not administered correctly. Know that you do have negotiating power if you know what to look for before you sign a contract.

Any pallet user must know what you can and cannot do as well as what the pallet rental company has agreed to do in terms of service level, pallet quality, delivery, consulting services, etc. Asking the right questions can make sure that you don't miss a critical detail that will end up costing you a lot in the end. Make sure to ask, "What is the responsibility of the rental company?"

This should include the following:

- 1.) Will ensure that the pallet is of merchantable quality except for defects which a reasonable examination by the customer prior to the use of the pallet ought to reveal.
- 2.) Manage the effective operation of the rental pallet activity.
- 3.) Provide account management services.
- 4.) Provide consulting services if requested.
- 5.) Will deliver truckload quantities. For LTL shipments additional fees apply.
- 6.) Provide invoices in a timely manner.

IV. Benefits and Pitfalls of Pallet Rental

Analysis of issues to consider when reviewing options to the Costco mandate.

Pallet Rental Customer Obligations

The rental customer has a list of responsibilities it must perform to stay within the contract guidelines. A few areas to examine in order not to break your contract are:

1.) Take good care of your pallets and prevent contamination of any kind. While the pallet rental company usually does not require indoor storage, it usually would prefer it, which can add to the cost of a rental system.

2.) Inspect equipment upon receipt for defects and to ensure it is fit for use. Immediately return to the pallet rental company any pallet that is not fit for use for whatever reason.

3.) Accept transfers of pallets from other rental company customers.

4.) Promptly and accurately notify the pallet rental company of all returns and transfers of pallets including names, rental pallet account numbers, quantities, dates, invoice numbers, PO numbers, and any other identifiers.

5.) Conduct annual inventories and allow the rental pallet company to participate.

6.) Comply with all the rental pallet company's standard proce-

dures.

7.) Transfer equipment only to the pallet rental company's authorized locations with approved account numbers.

8.) Supply annual and monthly forecasts of pallets needed by location.

9.) If a customer ships to a third party (anyone other than end user or service center) the customer will remain responsible for that pallet. Customers will reimburse the pallet rental company for any marks on that pallet that tamper or cover up ownership.

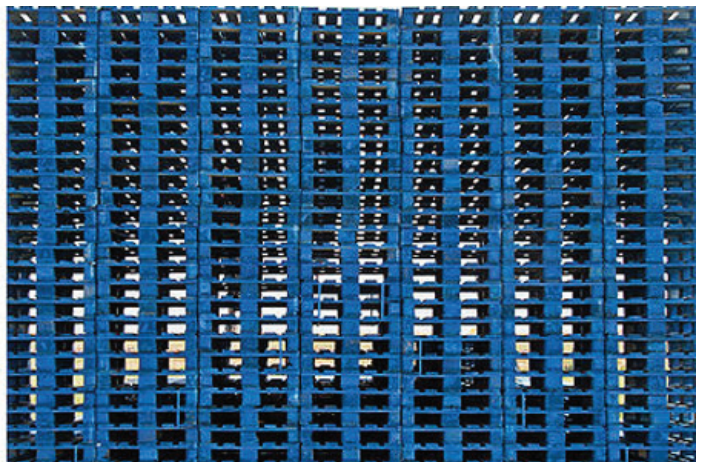
10.) A charge will apply for any pallet that is lost, destroyed, stolen or damaged. Payment for a lost pallet does not transfer ownership.

In order to do your due diligence, the program administrator needs to perform a minimum of the ten contract elements mentioned above. Of course, this is just a segment of a contract, other areas cover contract termination, liability and indemnity and other general stipulations.

More often than not the administrator has never seen the contract and only does as much as he has been trained to do. These ten areas are not negotiable

even for big customers although the pallet rental company may write off for high volume accounts any penalties for lack of performance in the contract. Failure to follow these key actions can result in severe mismanagement of the program, thereby resulting in significant lost equipment fees or other charges.

Rental companies claim to remove the headache of managing pallets. But some pallet users report that pallet rental simply creates a new set of headaches. Customers have to reconcile lost pallets, haggle over daily usage rates, verify audit numbers from the rental companies, etc. One contact recently claimed that it cost a dollar or more per pallet to manage its involvement in the CHEP pool. This cost is not something that most people consider when they are being told about getting rid of the headache of being in the pallet business. And high management costs are not unique to CHEP. All rental systems put some of the onus on the pallet user to keep proper records to ensure accurate billing. You don't want to just use the numbers supplied by the rental company. You need some checks and balances to ensure fairness and accuracy.



IV. Benefits and Pitfalls of Pallet Rental

Analysis of issues to consider when reviewing options to the Costco mandate.

Lost Pallet Problems

There's nothing that can sour a business relationship like a mammoth surprise bill. This is especially true for a rental pallet program. But smart management can keep your pallet program costs inline with initial projections.

As the largest pallet rental company in the world, CHEP is a significant force in the global supply chain. Thus, it is only natural that negative criticism arises when CHEP customers are informed of lost pallet charges. These costs for missing blue pallets are called Lost Equipment Notices (LENs).

Make no mistake, despite the subtle differences in pricing structure, iGPS and PECO will have similar issues as they obtain more market share from CHEP. The point that needs to be made very clear to the program administrator is that all rental pallet programs are self-managed with emphasis on the self.

Pallet rental companies promise no headaches and ease of use. But in reality, rental programs tend to come with different headaches from a typical one-way pallet model.

CHEP's online pallet management system, Portfolio Plus, is a robust system designed to provide customers the information they need to succeed. Despite strong computer tools, many CHEP customers are still losing a significant number of pallets. This is because the real problems are caused mostly by human decisions not a lack of technology.

In many cases, the administrator of a pallet rental program is a clerk in shipping or another administrative position. Clerks are often charged with many tedious tasks. And they may not have the authority to manage or expertise to understand how variables in a

company's supply chain work.

Take the produce sector for example. Many farmers barely have computers in their shipping operations. In almost all cases, farmers are not worried about reconciling the rental pallet program until after the season is over. This provides a perfect example to discuss what could go wrong and what to do about it.

Produce companies receive pallets from outside companies, such as 3PLs, raw material suppliers, packaging suppliers and inbound international shipments. When the produce company receives pallets from the rental pallet company, they are shipped to the field where produce is boxed and put on the pallet. The pallet is then transported back to the produce company where it is processed, stored and shipped. Many times the produce company will use co-packers to pack and store their fruit, other locations within the company's network, as well as outside storage facilities. When the product is sold, it could go to several sources prior to arriving at the end user, such as produce brokers. Most rental companies rarely work in tandem with produce brokers, which are generally considered Non-Participating Distributors (NPD). These supply chain participants can be a major source for pallet losses.

As produce companies become more sophisticated, more international shipping is being done. Inbound shipments from produce bought from Mexico and South America have proven to wreak havoc on rental pallet inventory management for North American receivers. After the produce company has received all inbound pallets from various sources, these pallets are sent to a distributor or end user. From there, CHEP

arranges or collects the pallets for sort, repair and reissue.

Anyone running or managing rental pallet inventory should be required to know and understand how the supply chain works. This includes all vendor inbound shipments, customer outbound shipments, quantities, as well as who should not be shipping rental pallets into your facility.

Next, know all of your business locations. Produce companies especially will ship pallets and packaging material to several locations before the finished product is built and shipped. Produce companies may harvest/pick several fields in a season. There is no visibility between the pallets leaving the main facility to the field. Additionally, if the company has several facilities, there is rarely reporting between the multiple inter-affiliated locations.

Produce brokers are one area that gets limited visibility. For the most part brokers are not cooperative in discussing who their customers are. They would rather not deal with any of the rental pallet companies. In addition, the storage facilities, co-packers, or brokers report their transactions. This is the responsibility of the grower, who needs to discuss reporting if the product is going to be shipped on a rental pallet. Ultimately, it is up to the shipper to report because they are responsible for the pallet until it is received and transmitted to the end user.

The biggest causes of lost pallets are a lack of training, information flow, and shrink. There are many aspects to the supply chain which can complicate efforts to understand and run a rental pallet program. Knowing every area rental pallets touch in your supply chain can help identify problem areas and avoid costs associated with lost pallets.

V. Block Pallets 101

Tutorial on the basics of block pallet history, design, and performance.

Block Pallet History & Growth

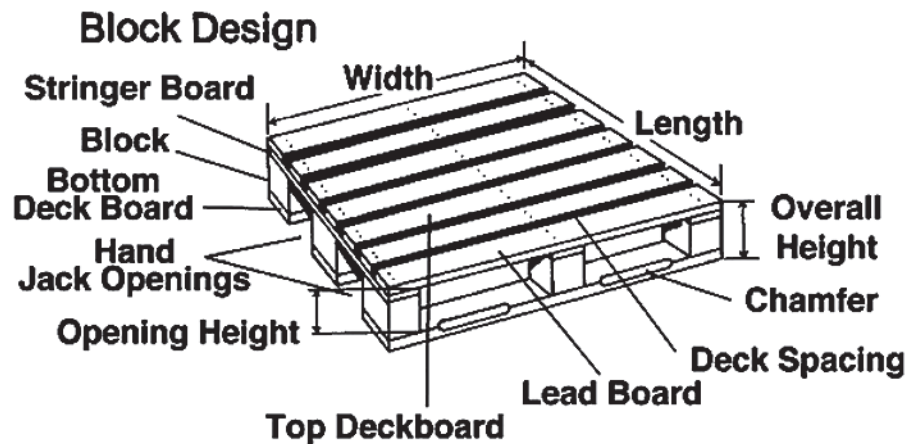
Over the last few years there has been quite a lot of talk about the possible emergence of block pallets in North America. Yet, the stringer pallet continues to dominate the non-rental pool market.

There may be more block pallets manufactured today than the industry often recognizes. There are some pallet manufacturers that can build block pallets efficiently in large quantities on automated nailing systems from both European and U.S. manufacturers. Many more manufacture block pallets in smaller quantities on tables.

Conversations with some pallet companies that make significant quantities of block pallets and machinery companies that sell nailing machinery suggest that, in spite of the talk about block pallets, the non-rental market has thus far not made any significant shift in that direction. Tomorrow may be different, but that has been our experience so far. This could, of course, change with the new Costco block pallet mandate.

Over the last 10 plus years more unit loads of product are moving on block pallets in the United States because of the number of block pallets in the CHEP, PECO and iGPS systems that make a number of trips per year. More pallet users have been exposed to block pallets; many reportedly like them due to easier handling efficiency, true four-way access, perceived strength and durability benefits, and other advantages.

Why might block pallets become more prominent in this market? Think about the factors that will drive the future direction of the industry. CHEP is unques-



tionably the biggest international pallet supplier; its system uses block pallets in most parts of the world. The largest pallet pool in the world is the EUR-pallet pool in Europe. EPAL, the EUR-pallet management organization, claims its pool contains approximately 500 million block pallets. Anybody who has dealt with Europeans knows that they can be pretty set in their ways, and block pallets are entrenched in Europe. Any movement toward worldwide pallet specifications is likely to be on block pallets because CHEP, EPAL and many multinational corporations have shown their support for block pallets.

China and other Asian countries are not nearly as palletized as North America and Europe, but the Pacific Rim leans more toward block pallets, including plastic block pallets and CHEP pallets. In recent years, EPAL's leadership has been working to encourage Asian countries to increase their number of EUR-style block pallets. So, both block pallets and 800x1200mm and 1000x1200mm dimensions are likely to dominate any international standards. This may occur despite the fact that the EUR-pallet footprint is not the most efficient for cubing out many transit

vehicles and containers.

There will always be room for stringer pallets in the U.S. market due to the entrenched status of this style of pallet as well as the vast manufacturing and repair capacity already in place for stringer pallets. Also, it is easier and cheaper to manufacture and repair stringer than block pallets. But when it comes to pools and national standards designed for reusable pallets, look for the headwinds to favor block pallets. This is especially true for any pool that is designed to appeal to the retail market, which has shown a preference for block style pallets in many cases.

Potential Impacts of a Block Pallet Shift?

What would a shift toward more block pallets mean to the pallet industry? First, a move toward block pallets would require more pallet companies to change and gear up to either manufacture or repair block pallets. This is not a minor change. It would add cost initially due to the transition required to new manufacturing practices, installing new equipment, etc. Long-term costs would be higher due to the added complexity involved in producing block pallets. Block pallets are



simply more expensive to produce and repair than stringer pallets.

Second, companies might find themselves having to use more softwoods instead of hardwoods because most block pallets are made from softwoods. How much of this is due to necessity and the desire for lighter weight? How much is due to habit? Real world experience seems to indicate that this trend is due mostly to historical developments. It is true that block pallets have their home in Europe where softwoods dominate the pallet landscape. In the U.S., hardwood lumber is the predominant form of pallet lumber. A major shift to-

ward block pallets might have a significant impact on the pallet manufacturing industry, particularly across the mid-section of the country. The pallets are lighter than many hardwood pallets, which may be a plus to our customers. Hardwood pallets are typically stronger than softwood ones, but they are heavier.

When examining the impact that softwood block pallets will have on our industry, keep in mind that we have historically depended heavily on hardwood supplier sources. States across the middle part of the country from Pennsylvania southward through North Carolina and west through Missouri and Arkansas,

known as the “pallet belt,” have supplied significant quantities of hardwoods to both the local pallet companies and those serving markets either north or south toward the border states. What will happen to the hardwood pallet manufacturing industry in those states if our industry switches more to softwoods? In addition to the impact on hardwood sawmills across the pallet belt, where will our industry get the softwood supplies that it will need to build significant quantities of block pallets? Will it come from the Southern Yellow Pine mills in the Southeast? Or will it come from northern SPF sources, mostly Canada?

V. Block Pallets 101

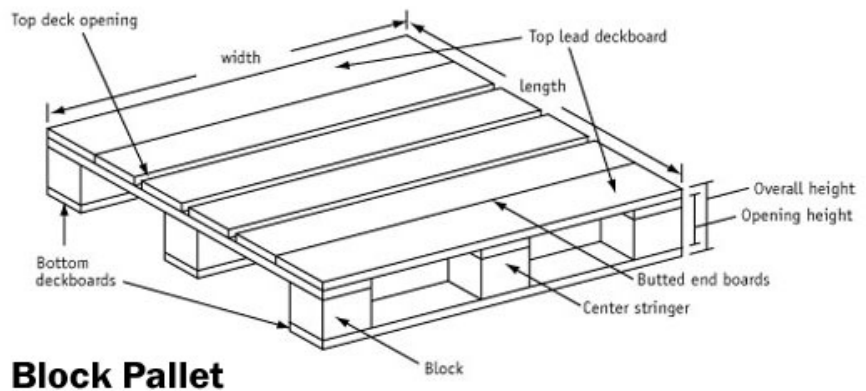
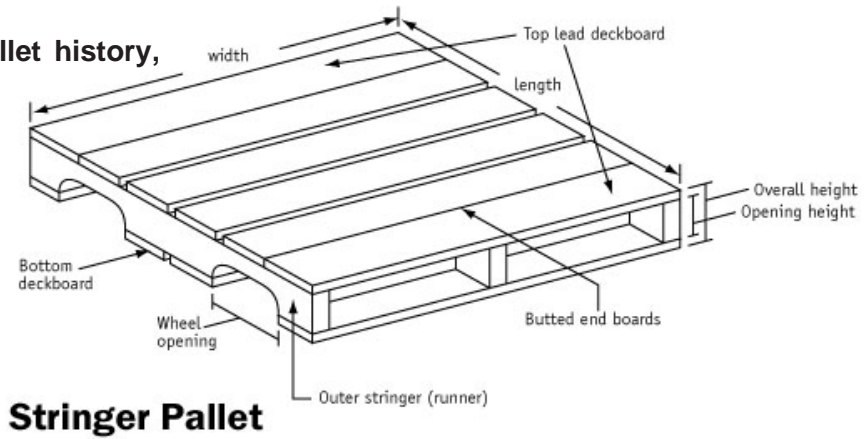
Tutorial on the basics of block pallet history, design, and performance.

Block Pallet versus Stringer Pallet Design

The main difference between block pallets and stringer pallets is the way block pallets are constructed to allow full four-way entry. This important distinction provides the user benefits that are the very reason that many of them prefer block pallets. In order to get into stringer pallets from the sides, the most common practice is to notch the stringers to make room for fork tines to enter. A common form of block pallet uses three sets of three blocks with a stringer board laid across the blocks and nailed into them, sometimes called a dumbbell. The additional height of the blocks versus the height of stringer notches and the additional spacing between the blocks versus the width of a notch allow a much wider variety of fork truck and hand jack options.

When talking about block pallet assembly, one has to tackle the basic concept that differentiates block pallets from stringer pallets. Block pallets use blocks, usually nine of them, with stringer boards on top of them (typically three stringer boards). Thus, a stringer is typically replaced by three blocks and a stringer board, a unit called a dumbbell.

The common Europallet or uni-directional block pallet typically has three bottom deck boards, each nailed to the bottoms of three blocks to form a dumbbell. The top deck boards are nailed to the top stringer boards to form a mat, which is then nailed into the blocks of the three dumbbells. Fork trucks and hand jacks can enter this style of pallet from all four sides, either from the ends between the dumbbells or from the sides between the blocks and the stringer deck boards of the



dumbbells.

There are other styles of block pallet bottoms; certainly one of the most common is a perimeter based picture frame style. This kind of bottom looks like a picture frame with five bottom deck boards. Each bottom deck board is typically nailed to three blocks. Some of the top deck boards are nailed using longer nails through the stringer boards into the blocks. In the top joints that are not above a block, the deck boards are nailed into the stringer boards. These joints usually use either a clinch style nail that turns upward into the stringer boards or a short ring shank nail that has more limited holding power.

The strongest joints use clinch nails. Shorter unclinch nails are more likely to come out easily.

Most block pallets use two or more nail sizes and more complicated nailing patterns than stringer pallets. And the clinching concept requires special nailing capabilities. It takes longer to

build a block pallet, which causes it to be more labor intensive and more difficult to manufacture.

One of the most common methods to build a block pallet uses multiple stages. The top deck boards and stringer boards are assembled into a mat which is then nailed into the blocks with long nails. A common nailing option is to assemble the mats and dumbbell bottoms (Euro-style pallets) in two different steps. Then nail the top mat onto the dumbbells using long nails.

Stringer pallets can be rapidly built on tandem nailing systems where two nailers with a turner between them perform the needed nailing functions. Pallets can then be stacked for efficient handling on a pallet stacker. Block pallets can be fabricated on tandem nailing systems as well, but the nailing machines are more complicated, and the steps present a greater challenge. Thus, a tandem block pallet nailing system is more expensive.

VI. Additional Resources

Links/Resources

Pallet Industry Market Research

Pallet Profile – Covers new pallet and low-grade lumber markets. Includes the most complete coverage of pallet industry news as well as regular lumber and pallet prices. www.palletprofile.com

Recycle Record – Covers the recycled pallet market. Includes the most complete coverage of recycled pallet industry news as well as recycled pallet market updates and used pallet prices. www.recyclerecord.com

Pallet Enterprise – Major trade magazine serving the wooden pallet market. Archives are a vast resource of information on pallets. www.palletenterprise.com

Pallet Supplier Options

CHEP	www.chep.com
PECO	www.pecopallet.com
iGPS	www.igps.net
PIMS Pallet	www.pimspallet.com
White Wood Pallet Locator	www.palletcentral.com

Other Resources

Costco Block Pallet Mandate

http://www.pimspallet.com/PIMS_Pallet/Costco_Specs.html

Pallet Lab & Testing

Center for Unit Load Design <http://www.unitload.vt.edu/>

Pallet Buyers' Guide

<http://palletenterprise.com/articledatabase/pdf/AltGuidepeNovember2010.pdf>

Transport Packaging Websites.

www.materialshandling.net
www.mmh.com
<http://packagingrevolution.net/>

MMH Pallet Survey

http://mmh.com/article/results_of_the_2010_pallet_usage_and_trending_study

Sources: The material in this special report was assembled by the staff of *Pallet Profile* and *Recycle Record* from a variety of published sources and industry information. Some of this material was previously published in one of our publications and was written by Dr. Ed Brindley, Chaille Brindley, or Andrew Mosqueda.

Editorial Guarantee: The information in this report is not guaranteed for any purpose or to reflect all experiences with various rental and other pallet providers. Pallet suppliers have a wide variety of latitude in pricing and contract negotiations based on contract volume and other parameters. The material contained herein is merely to provide a guide of how some situations have worked in the past.