

## Is this the State of Affairs?

As I sit at my desk, looking at the picture on the right, I can't help but think to myself, "This can't be the pallet world we live in. Are things really that bad that people are resorting to using *this?!?*" Despite my state of denial, there is no other path that leads to an answer other than, "Yes, unfortunately it is."

### Part 1 - What is the problem?

I still remember the day I came across this pallet "stack". My normal instincts told me that this was a scrap pile or even a rejected pallet pile. That was not the case as I was quickly informed that these were the pallets that this potential customer purchases, by the truckload mind you. Upon further examination, there were more stacks of these kinds of pallets, sitting pitifully on a trailer waiting for the next stage of an already overextended life cycle.



To the untrained eye, the top pallet may seem like any other pallet; some pieces of wood nailed together and pretty beaten up. While one could argue that the condition of Grade B pallets (often called #2's) isn't much more than that description, things weren't always that way. For example, one of the defining aspects of a #2 pallet is the presence of "double" or "plugged" stringers, where cracks or missing pieces of the stringer are repaired by nailing or stapling another stringer (partial or full) to the problem area. By taking a closer look at the picture, one can see that not one, but EVERY stringer has a plug or double stringer attached. To make things worse, two of the three have triple plugs! Complementing the gross overuse of plugs, the decking has its own bag of tricks. The most noticeable of these is the lack of full length decking with the substitution of "half" length decking, as highlighted below. While this trick of the trade isn't necessarily a bad thing, just take a closer look at the material. If the boards were still good condition and could hold up, I would say, "Sure, this isn't that bad of a pallet." However, an approximate 70% of the deck boards are splintered or shattered in some way. Also, a good 30% of these boards are boards by definition only, as they are too thin or curved and are barely hanging on by the nails that most likely splintered them in the first place.

In years past, this pallet would have long been sent to the "Big Warehouse in the Sky" but due to the extreme lack of used materials, this poor pallet has been revived repeatedly past its expiration date. One of my coworkers aptly stated, "This pallet isn't just looking to die, it's begging to." Just like the saying, "Good intentions are the baby steps to Hell," this pallet is the result of a perfect storm of smaller issues all synergistically combining to be much worse than the sum of their parts. When looking at the forest instead of the trees (insert unnecessary pallet pun), it make sense how this pallet alone is a correct microcosm of the current state of a market that is slowly drudges through a full blown shortage.

Monday, October 21, 2013



## How did we get here?

The dialogue concerning this market trend is almost as weathered as the pallets themselves. Many people want to blame Costco while others are pointing fingers at the recent economic downturn. In reality, no singlehanded event adulterated the standards of the pallet industry, but instead a perfect storm of occurrences that acted as independent dominoes, recently falling faster than anyone is very comfortable with. Of late, certain historical events have somewhat blinded many analysts and led them to believe that the issues with the pallet market are limited to the aftermath of the past decade or so instead of stewing for the better part of five. I am referring to the oft-bemoaned "Costco Decision", but there will be more time for that later. What is instead occurring is not the result of two or three root events, but instead a severe acceleration of conditions that have been slowly lumbering (again, insert unnecessary pallet pun) along, carrying us straight to the precipice of an industry-wide depression.

### PALLET DESIGN SYSTEM Version 5.1

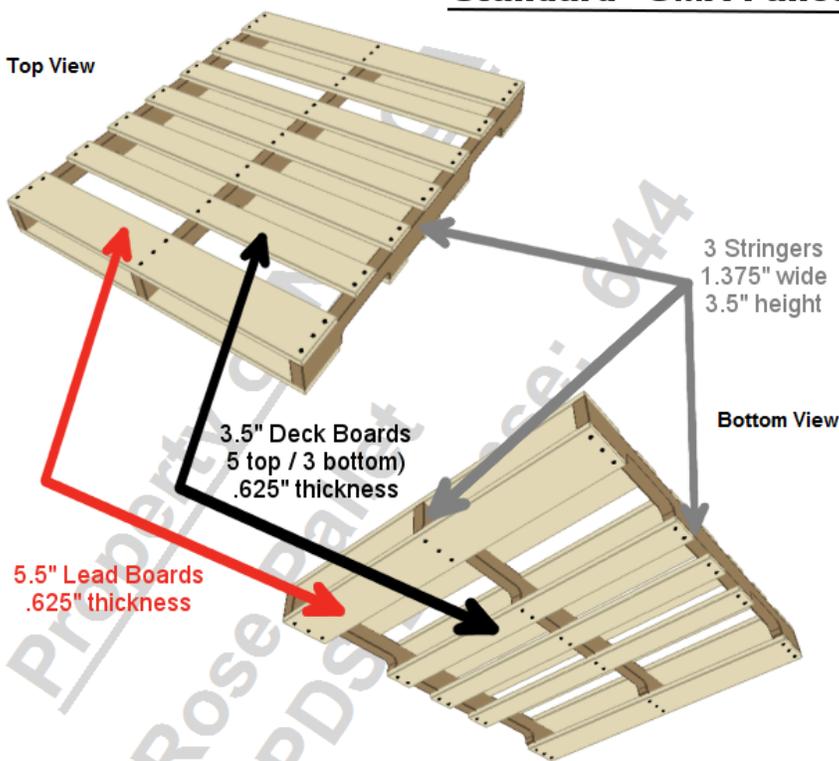
#### 3-D Pallet Drawings

Pallet ID: 48x40 4-Way

Classification: 48.00 x 40.00, Stringer-Class, Double-Face Non-Reversible, Partial 4-Way, Reusable, New Manufacture

### "Standard" GMA Pallet

Top View



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Customer:



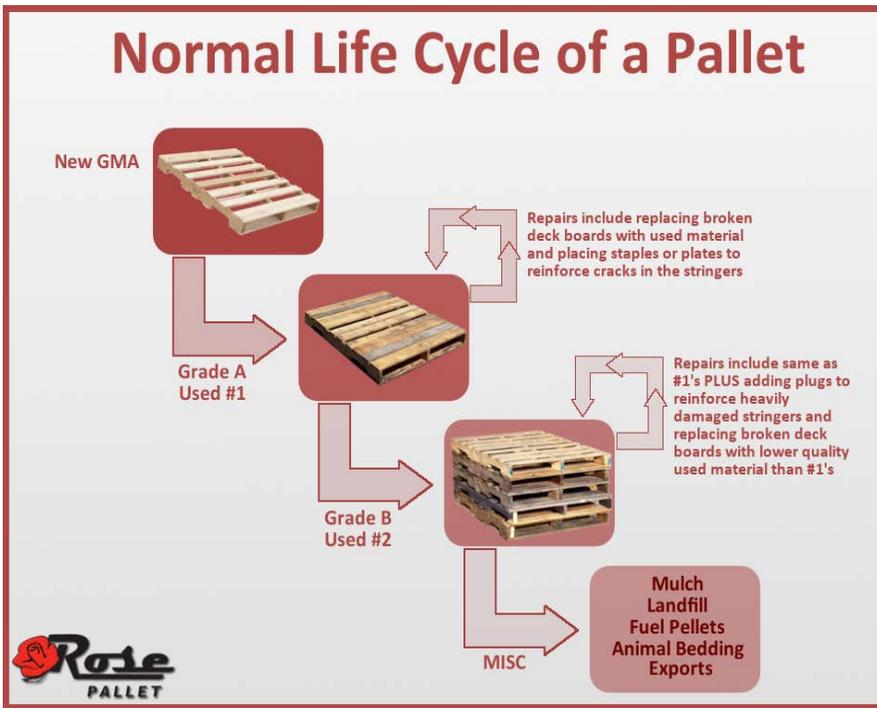
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A quick recap brings us back to the late 60's/early 70's when the American grocery industry attempted to standardize pallet sizes and establish a pallet exchange system. At that time, the General Foods pallet became the model for the standard which today is referred to as a GMA pallet. In theory, everything worked well. Pallet manufacturers could adhere to specific standards and companies would exchange their broken pallets when they ordered new ones. Reality, however, brought a different story. A lack of enforcement of the exchange program combined with a reticence of buyers to purchase new GMAs over less expensive alternatives quickly derailed these efforts. As a response, the grocery industry lowered their specification requirements to more cost effective and light-weight versions (called "modified GMA's). Again, due to lack of enforcement, multiple variations of modified GMA's surfaced, which included replacing the 5.5" lead boards and variable thicknesses while still maintaining the 48" x 40" outer dimensions. The short term effects included lower quality pallets entering the pool, product damage and other complications in the exchange system. (LeBlanc, "Pallet Core Shortage")

The following diagram depicts the typical life cycle of an average pallet.



From here, it is easy to see that by placing non-standard sized pallets at the onset of this life cycle (New GMA), the entire chain will be affected. Although this process may not appear complicated, it will become crucial to understand the effects on each aspect as outside factors start to challenge the traditional pathways that recyclers are able to utilize.

For example, the variations in new GMA pallets drastically increased the material variability of the used pallet market, making it virtually impossible to standardize the recycled pallet market. If the three 48" x 40" pallets depicted

below were disassembled and re-purposed for used pallets, the recycler would have a myriad of material and the reconditioned pallets created from such material would be so variable it would be impossible to adhere to any single standard. Although it didn't seem like it at the time, the development of this "non-standard standard" became arguably the first step down the road leading to a full-fledged pallet problem many years later.



Type	48" x 40" New Manufacture	48" x 40" New Manufacture	48" x 40" New Manufacture
Stringer Thickness	1.125" (1 1/8")	1.250" (1 1/4")	1.500" (1 1/2")
Decking Width	5.5" lead boards/3.5" deck boards	5.5" lead boards/3.5" deck boards	All 3.5" deck boards
Decking Thickness	.500" (1/2") decking	.625" (5/8") decking	.750" (3/4") decking

While the aforementioned lack of standardization in the whitewood market can be seen as a significant factor in today's pallet shortage, it by no means is the only one. Fast forward two decades. While the whitewood pallet industry was

*Article written by David Sexauer, Account Manager at Rose Pallet.*

profitably expanding (despite the issues of standard sizes), other innovations were introduced to the market as viable alternatives. CHEP came to the United States in 1990 after 11 years in Canada, offering a value proposition of a quality pallet that was rented on a per trip basis and returned at a later date. While CHEP grew quickly in the US, the used pallet industry received a short-term bump in inventory. This coincided simply because companies that switched to CHEP offered up their whitewood pallets to recyclers, often times just giving away the cores to make room in their warehouses. Also around this time, plastic pallets began to make their way in the market, with the appeal of a much more durable pallet that served for downstream distribution of grocery products to retail outlets. This niche provided positive growth for the plastic pallet market and dovetailed the short-term increase in available pallet cores for the recyclers. Although the market shrank somewhat for new pallet manufacturers, the abundance of used material placated these pains and then some. Many manufacturers were content dedicating larger percentages of their business to recycling and selling remanufactured pallets. (LeBlanc, "Pallet Core Shortage")



In our timeline of "Factors that Accelerated the Current Crisis", CHEP and plastic pallets turned the heat up to medium. Their pressures on the industry were not seen as totally threatening since it appeared for a while that everybody could share and not infringe entirely on each other. The underlying current was masked and often ignored as long as each entity could remain profitable. In an effort to bolster the whitewood stake in the pallet market and the increasing presence of technology, software called The Pallet Design System became much more prevalent. This program, engineered and designed by John McCloud, III, allows a user to create a virtual pallet and test it under various conditions. The goal was to allow pallet manufacturers the ability to create the exact pallet necessary for their customers, reduce waste and overall cost to the consumer. To maximize efficiency, pallets often became lighter and made of more economical materials than the "standard" GMA of years past. Many pallet experts will argue that although the software could be utilized to make the best pallet for a single customer, the effect on improving the overall industry were counterproductive since it also reduced the pallet's lifespan. A shorter lifespan means that the pool needs to be replenished with new pallets more frequently. Conveniently at the time, the increased turnover rate was also masked by the short-term increased inventories. (Trebilcock, "Pallets: A core problem")

It is easy to understand why all of these factors, even if noticed, would often get overlooked or ignored. As long as everyone was profitable, people were satisfied. Many pallet manufacturers and recyclers will tell you that the 90's were their best overall years in business, though their numbers began to level off when the market became more equalized after enough consecutive years of whitewood, CHEP and plastic competition. It wasn't until the mid-2000's that certain events brought all of these problems into fruition and the real challenges to the industry occurred. During a "normal" pallet cycle, companies that primarily buy used or reconditioned pallets would bolster their inventories by purchasing new pallets during their high shipping season (October – December). This influx of pallets would help replenish the pool for the following year and gave life to the recycling industry. As the economy took a turn for the worse, many companies skipped out on their annual splurge of buying new, instead opting for more reconditioned pallets. The most severe case occurred in 2008 where virtually none of these companies bought new pallets relative to years prior. This skip in the cycle cause a ripple effect that begun depleting a pallet pool already feeling pressures, such as increased exports. Lee Evans III, Sr. Account Manager at Millwood Inc., reported that US exports rose 23% from July 2010 through June 2012, with used pallets making up a large percentage of the increase. (Millwood Inc., "A Shortage of Cores") These are pallets that are shipped overseas and rarely, if ever, returned to the US. Combined with a skip in the normal cycle, those inventory increases enjoyed a decade before were now becoming depleted at very rapid rates.

The single-most devastating factor contributing to the current pallet recession, debilitating as it was on its own and only exacerbated by each of the dynamics already mentioned, was the so-called "Costco Decision". Short-sighted pallet historians may believe that it was this decision that was the root cause of our current situation, but it actually served as

an accelerant on already smoldering embers. Specifically, this influence would not have been nearly as distressing had the whitewood market not already been constricted, non-standardized, and heavily reliant on single large companies to compose such a large majority of the purchasing. In January 2011, Costco, one of the largest purchasers of new whitewood pallets in the United States, decided to forgo buying stringer pallets and elected to go with CHEP, the previously mentioned rental block style pallet. Without the large quantities of new pallets to replenish the recycled market, the downward spiral of the pallet life cycle worsened dramatically. In addition to Costco, many companies which also bought new pallets but were hit hard by the economy sought out the more economical aspects of #1's and #2's. Any Econ 101 student will tell you that high demand and low supply is a recipe for disaster when run to the extreme limits of any industry. In order to compensate, manufacturers were forced to keep pallet cores in the overall pool much longer than they ever had ever been required in the past and continually recondition these pallets as much as possible, ultimately lowering the quality of a "traditional" #1 or #2 into something virtually recognizable. Enter Exhibit A, which brought us here in the first place:



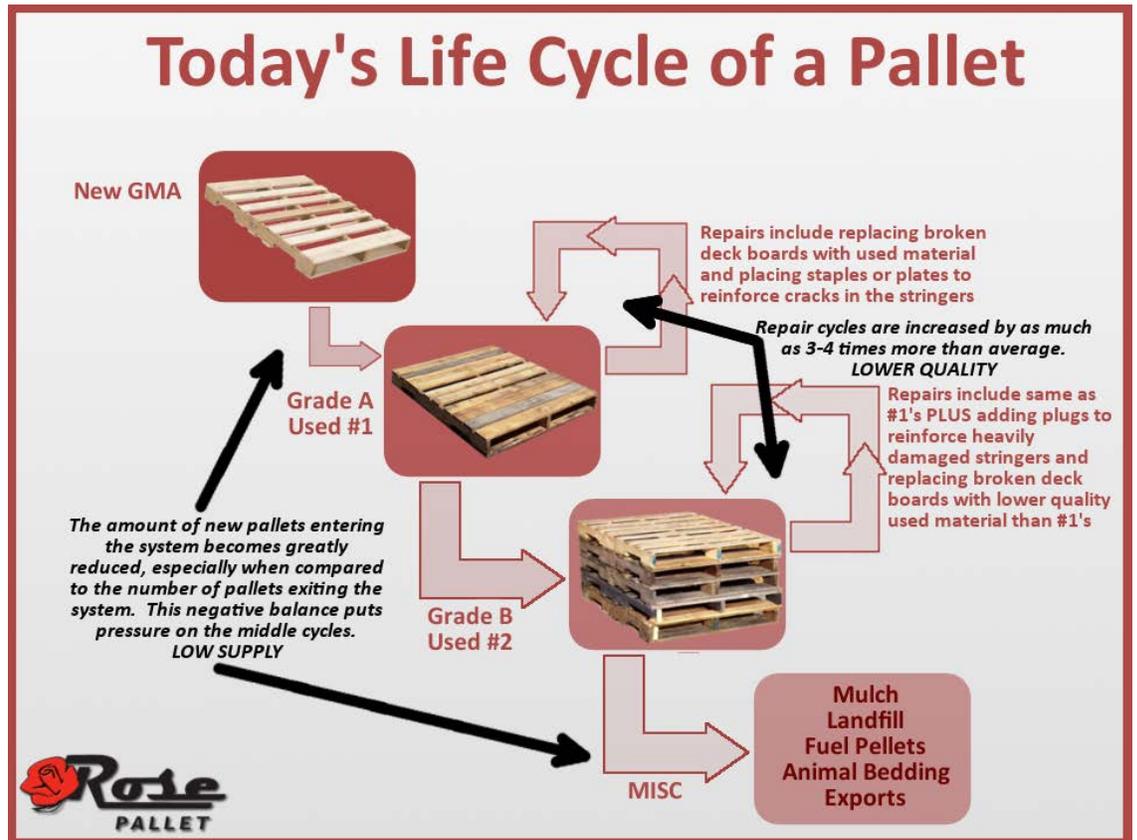
Remember this guy? At this point, any pallet standards have been thrown out the window to just get some kind of pallet to this customer.

Today's shift in the cycle as shown below demonstrates how the cycle has been flipped upside down and is on a direct path to completely consume itself (a lot more quickly than people want to believe). Pallet recyclers understand this, but must spend so much of their resources just trying to stay afloat that it becomes increasingly more difficult to enact the necessary changes in the market. Pallet manufacturers have been screaming from the mountain tops that companies need to continue to purchase new pallets, but their requests are falling on economically muffled ears, so much so that they too are forced to convert larger percentages of their business to be repair/recycle capable in order to keep their doors open or face contraction. In other words, the only growth and investment in the pallet industry has been in the middle sectors of the graph above, the absolute worst places if any kind of solution will be achieved.

Again, the Econ 101 student will be quick to point out that High Demand and Low Supply always are accompanied by their ugly, step-sister, Inflated Pricing. At the local level, the reduction in inventory has been sobering to say the least. John Sweenby, President

of Paltech Enterprises, said in July 2012, "The volume of cores available to us is down 25% from 2008. We have fewer cores to repair and sell." To add to problem, he is also quoted as saying, "Not only are cores in short supply, the prices that pallet operations pay for used pallets... are going through the roof. That is driving up the cost of shipping... especially for manufacturers who can't charge their end customer for the pallet." He estimated that repair costs had gone up about 33% between 2011-12, with no relief in sight. (Trebilcock, "Pallets: A core problem")

On a national scale, Gordon Hughes, President of Wood Packaging Solutions and former head of the Canadian Wood Pallet and Container Association, used market research to attempt to see what was really going on with the shortage and figure out if the symptoms could point in the direction of a solution. By looking at a cross-section of the industry across different regions of the country, he was able to see different regional trends and discrepancies even though the central issues still remained the same. There is a noticeable disparaging sentiment between the small, local yards and the larger, national companies, who are being accused of hoarding pallet cores and not releasing them back into the market. (Hughes, "Lack of Cores – Where Have They Gone?") Whether or not this is the case is debatable at best and it is more likely that decades of improper or illogical business practices contributed more heavily to the modern shortage than the reactionary behavior of the industry's largest entities.



Monday, January 6, 2014



### Part 3 - How do we move forward?

After everything we have discussed about the problems concerning the used pallet industry including events to our current mess, we are still left with questions concerning a solution. The problem has clearly been identified on both the local and national level, yet many companies are still reticent to either accept the current reality or believe that they can continue along with their individual status quo until the market finds ways to correct itself. Meanwhile, this course of action only continues to worsen the problem and does not aide pallet industry out of the quagmire. ..

The first step is always education a.k.a. the first two segments of this article. The culpability by no means lands squarely on the shoulders of the consumer. However, education and information provide the necessary tools so that controllable, preventative measures can be taken in the future. For example, it is clear that the purchase and manufacturing of new pallets is essential to the entire industry. While not every company requires new pallets in order to maintain viability, continuing the cycle of purchasing some new pallets per year helps to give back to the pool. The “skip of 2008” has proven to be highly detrimental to the pallet cycle and caused ripple effects that were much worse than anticipated. The influx of new material also keeps the average quality of a pallet at a much higher level than a market run by “bottom-line chasers”. The large scale effects of a market almost completely run by price have been well documented in this article. The smaller scale includes costs of decreased availability (inability to move product without pallets), increased incidence of pallet failure (resulting in both damage of product and/or employee injury), and increased company downtime. While it is very easy to get caught up the cost of an individual pallet, any of these categories can quickly outspend the additional bump necessary to upgrade to a higher quality or new pallet. At this point, you are paying for much more than just a pallet.

The second step is action. Once educated, companies need to understand that the solution lies with them. Considering the market today, it is essential for both pallet manufacturers and recyclers alike that new pallets are purchased and enter the severely depleted pool. There are several ways companies can help improve the conditions of the current market. First, as alluded to earlier, increase the budget for purchase of higher quality and new pallets. Second, take steps to start or improve pallet recycling programs. This includes working with your warehouse to segregate broken pallet cores and your pallet provider to establish a quality recycling program. Often times, especially in the current market, companies will be reimbursed for their cores instead of paying dumpster or removal fees. This can help offset the increased costs of acquiring new pallets or in some cases, become a new revenue stream for a company.

It takes a certain kind of company to evaluate its own industry, be prepared for all aspects, and provide multiple levels of solutions for its customers. Rose Pallet accomplishes that and more. Comprised of experts in the industry, we are prepared to provide outstanding customer service, quality pallets and up-to-date, current information regarding the industry to best support our customers in achieving their goals. In this regard, we are a Total Pallet Management company, dedicating our resources to the manufacturing of new pallets, the proper recycling of used material, and all solutions in between. For more information regarding this article or to entertain any of your inquiries, please feel free to call one of our representatives at any time. We would love to hear from you and be your preferred pallet experts!



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