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PUBLIC DISTRIBUTION CENTERS PERSPECTIVE

by

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Thank you and good morning. I certainly appreciate the opportunity to address this distinguished group today. As Wes said, for the past 10 years I have been with Southern States Distribution, a Memphis public distribution services company; I'd like to briefly give you some background on our company.

Southern States was founded in April 1973 by Connie and David Haynes in an attempt to establish a regional grocery consolidation program to head off rising freight and distribution costs for grocery manufacturers. We began with a 93,000 sq. ft. building and one storage account occupying 10,000 sq. ft. By 1974 we were full and forced to seek additional space; by early 1978 we were in four locations totalling about 325,000 sq. ft. This led to construction of our new warehouse complex in Hickory Hills, which we moved into in January 1979. Continued growth since that time has brought us to our present configuration of 750,000 sq. ft. We represent almost 100 different manufacturers, and we feel our principal list is a "Who's Who" of the grocery industry. To name a few: Armour-Dial, T. J. Lipton, Hershey Chocolate, M&M Mars, Best Foods, P&G, American Home Foods, Sun Diamond, Heublein, Libby McNeil, Uncle Ben, Miles Labs, Nabisco Brands. Plans are also on the drawing board for significant expansion in the near future.

We attribute this rapid growth to our market strategy, which is fourfold:

1. First, we market and promote the concept of regional public warehousing. We know the market, the

carriers, the wholesalers in our region, so we feel we have a distinct advantage dealing with them on a local level vs. a manufacturer who is geographically removed.

2. Second, our business is based on the grocery industry although we have expanded into other product lines. The demands of the grocery distribution system itself result in (a) higher standards, (b) a faster pace, and (c) a high level of service. You could say that to a certain extent the system is self-policing.
3. Third, we are staunch supporters of the concept of freight consolidation. Our outbound volume of some 400,000,000 pounds per year enables us to examine numerous shipping options on each order to determine the most attractive way to ship. This tonnage also provides leverage in dealing with carriers and obtaining a favorable rate structure. The success of our consolidation program is evidenced by the savings generated last year of over \$1,700,000 for our accounts.
4. Fourth is our flexibility. The days of the standard warehouse services day after day are long gone. We pride ourselves on our ability to accommodate almost any warehousing or distribution need, from raw material storage to production overflow; from repacking and pre-pricing to freight brokerage services; pool distribution, quality control.

This diversification dictates that we remain always open-minded to new opportunities for more efficient methods

of material handling and labor savings. This search for efficiency brings us to the topic of Modular handling.

The Modular factors we experience most frequently include:

TIERS
PALLETS
SLIPSHEETS
CLAMP UNITS
STRETCH & SHRINK WRAP
STRAPPING, BANDING
OVERPACKS

I would like to examine each of these and the effects they have, pro and con, on our segment of the distribution system.

Almost all case goods are received and stacked in tiers, or layers. Tiers may be interlocked or column-stacked, as long as there are the same number of cases on each layer. Tier stacking has several advantages although quantification at this stage is difficult. First, interlocking tiers help maintain unit load integrity, reducing load shift and damage. Second, tiering facilitates counting of the product; orders consisting of even tiers are easier to check and therefore incur fewer errors.

Note in these slides how much easier this layered order would be to handle than one like this. A key factor is to identify and protect the tier pattern throughout the distribution system.

Of course the most universal form of unitization is the wooden pallet, the most predominant being the GMA size, 40x48 inches. The pallet's main advantage is its versatility--it can be handled from all four sides; it can accommodate product of almost any weight. It can be handled by various types of equipment--lift trucks, pallet jacks, even hand jacks. Palletized is the fastest way to handle full unit loads of goods.

However, there are several disadvantages to a completely palletized environment. First is the sheer cost and accountability of the pallets. New GMA pallets in Memphis sell for about \$8.50 each, and keeping up with them in any sizeable operation is an accounting nightmare. Pallet exchanges with customers and carriers almost always leads to inequities in pallet quality also, with each party feeling that he got the worst of the deal. Manufacturers who ship on pallets are faced with problems (and often large freight bills) to have their pallets returned. Repairs and disposal of damaged pallets can be a significant expense. Complicating matters is the determination of whether a pallet is an asset or an expense. We treat them as assets and therefore have to keep detailed depreciation schedules and records on all pallet transactions.

Not all products are best stored on pallets. Apparently some packaging engineers are unaware that this should be a consideration when designing cases, hence we end up with a significant overhand or underhand. This can cause load shift, damage to product, and unsightly stacks and storage.

A unitized alternative to pallets is the slipsheet, a corrugated, fiber, or plastic sheet which may be pulled onto or pushed off the forks or platens of a lift with the unit load intact. Slipsheets are reusable only up to a point (depending on quality); generally the slipsheet is "written off" by the manufacturers and additional uses of the sheet are just a bonus to the recipient.

Product on slipsheets may be stored directly on sheets or transferred to pallets at any point. Sheets can be had in various sizes to accommodate any unit load size, thus underhang and overhang are less of a problem.

Slipsheets also are not without drawbacks. A piece of equipment commonly called a push-pull or pull-pack now costs \$8,000-\$10,000. Training takes three times as long for an operator to

become proficient on a pull-pack as on a fork truck. Slipsheets are not as versatile as pallets; for instance, your lift must be at a 90° angle to the slipsheet, it cannot be crooked.

Slipsheets call for special considerations. To store in racks you have to provide a plywood or metal shelf to set the load onto. Or a manufacturer may load a rail car from the "A" side and leave the lip of the sheet exposed. But the car may be placed at the receiver's dock so that his only access is from the "B" side; in this case he would need two sheets or a special doorway sheet with lips on each end. Also, a manufacturer of several types of goods must have sheets of a quality high enough to handle his heaviest products.

Before shipping on slipsheets you must be sure your receiver is equipped to handle them. Otherwise he will be forced to hand stack the load, or he may try to unload it without the proper equipment and probably inflict damage.

A method having some similarities to slipsheets is the carton clamp. Clamping can help achieve optimum cube by stacking "layers high" rather than "pallets high." Large units can be handled, and trucks and rail cars can be quickly loaded with a clamp. When clamp storing, as with slipsheets, the weight is evenly distributed over the cases below, making stacks straighter and reducing the damage sometimes inflicted by pallet boards. Clamp storage coupled with layer-ordering enables you to handle mixed orders almost completely by mechanical means. Clamp units may be placed on pallets or slipsheets for further handling.

Not all products can be handled with clamps, but generally the limits are based on the unit configuration more than on the commodity being handled. For instance, we clamp canned goods and glass bottles just as easily as paper products and teabags. However, we can't clamp bar soap, not because of the soap

itself, but because it doesn't come to us in a solid, rectangular pallet pattern.

As with a pull-pack attachment, a clamp costs \$8,000-\$10,000 and operators must be thoroughly trained. But the flexibility of this equipment pays for itself in a short time.

One of the most positive changes I have seen over the last few years is the increased use of stretch wrap and shrink wrap. In general, either of these is equally effective in reducing load shift and maintaining unit integrity. Not only do these measures aid in damage prevention, they allow the individual cases inside to retain their "plant-fresh" look longer. Any storage facility with plastic-wrapped product will be neater, have less damage, and can handle product faster because of the tighter unit loads.

Wrapping is not only beneficial on full unit loads. It may be used on complete orders, often eliminating the need to stencil cases.

The appearance of a partial pallet with plastic hanging off and the disposal problems are minute when compared to the overall handling advantages. Plastic netting can be used when there is a need for the product to "breathe", with the same basic results.

Strapping or banding may be utilized in place of wrapping, but frequently they are more difficult to apply; they are generally used only on full unit loads.

A few manufacturers are now using overpacks, extremely large boxes containing numerous small ones. This is advantageous primarily when the shipping case itself is a very small one. This does serve the purpose of keeping the unit intact, but I prefer the plastic wrap and it is less costly.

So, what is the economic impact of these factors?

Obviously the greatest savings is in the application of the unit load vs.

deadpile. The further the unit load may be maintained along the distribution system, the greater the savings. For example, we have customers who ship to us floor-loaded, paying up to \$.14 per hundredweight to get their trucks loaded at the plant, and another \$.14 surcharge to get it unloaded at the warehouse. Based on an average of 18 units per truck, he has spent \$6.22 per unit, far more than the cost to slip-sheet and stretch wrap. Furthermore, if he were to sell his product in these unit loads, his warehouse handling charges could be reduced by at least another \$.12 per hundredweight. Since over 75% of our handling labor is incurred on the outbound side, warehouse handling rates for unitized accounts will range from 20% to 50% lower than non-unitized ones. Some 80% of our principals ship to us in a unitized form, but less than 20% of our outbound volume is presently in full unit loads. Perhaps a portion of the savings available in this area could be offered to the wholesaler as an incentive to unit purchases.

The financial impact of stretch or shrink wrapping is more difficult to quantify, but shippers I contacted estimate their transit damage alone has been reduced 70% since addition of the wrap. Add to this the cost of processing claims and this effort has paid for itself several times over. Also, carriers and warehouse typically bestow more favorable rates upon shippers who protect their goods by wrapping.

Unfortunately, there are obstacles to the expansion of unitization.

1. Some wholesalers are still not equipped to handle all types of units; they are not yet convinced

that the savings returned directly to them will equal the investment.

2. The proliferation of inventory items complicates matters; coupon packs, off-labels, trial sizes, new-improved formula, etc. create imbalances and inconsistencies in inventory levels.
3. Goals related to cash flow and therefore inventory turnover have reduced the average order size (ours by 15%). To achieve more unitization throughout the system we must force this number upward.

MODULARIZATION PUBLIC WAREHOUSE PHILOSOPHY

As a "Middle Man" we must be flexible and responsive, while promoting more efficient methods in order to remain competitive and profitable.

The receivers must be convinced of the benefits of uniformity through consistent practical advice --

From Trade Associations
From Regional Warehouses
From Manufacturers and their
Field Agents

MODULARIZATION - IN ANY FORM - IS
WORTH IT!