

### Methodology

❖ Background: This study is the fourth wave of a tracking study conducted on behalf of *Modern Materials Handling*. The research is conducted to better understand current & future usage of pallets and to assess any trends that may be occurring in the pallet market. Results in this report trend back to the 2015 wave.

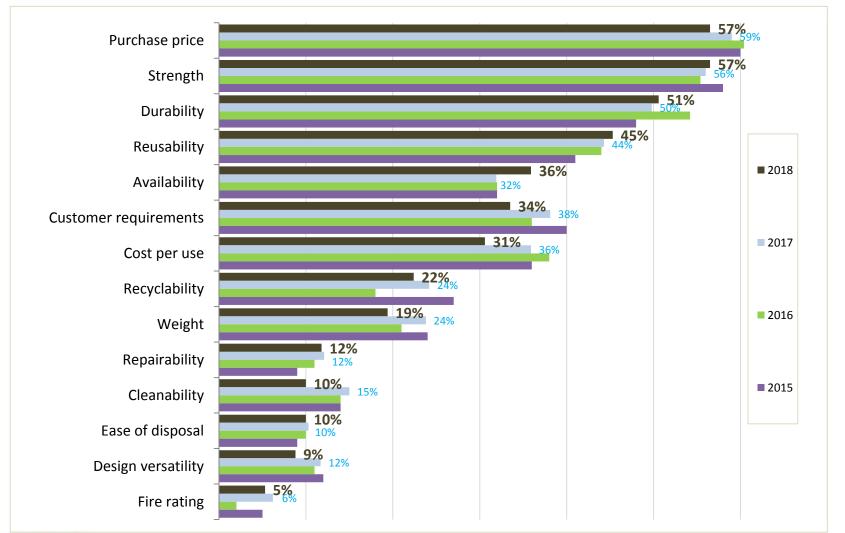
#### Areas of Investigation:

- ✓ Factors considered important when determining which types of pallets to use
- ✓ Types of pallets (wood, plastic, metal, etc.) in use/planned for future use
- ✓ Usage of new vs. used wood pallets
- ✓ Usage of plastic pallets
- ✓ Usage of metal pallets
- ✓ Level of usage for pallets during the next two years
- ✓ Recent changes to pallet usage patterns
- ✓ Usage of pallets rental services
- ✓ Usage of pallets outside the US
- **Sample:** Subscribers of *Modern Materials Handling* magazine
- **Respondent Qualifications:** Being employed at a location that uses pallets
- Research Method: By email invitation. The invitation included a URL linked to a dedicated website which hosted the questionnaire
- Field & Response: Field # of usable returns +/- Sampling variation at 95% confidence level

	Field	# of usable returns	+/- Sampling variation at 95% confidence level
2015	June 2015	355	5.4%
2016	August 2016	286	6.0%
2017	July 2017	274	6.1%
2018	July 2018	170	8.0%

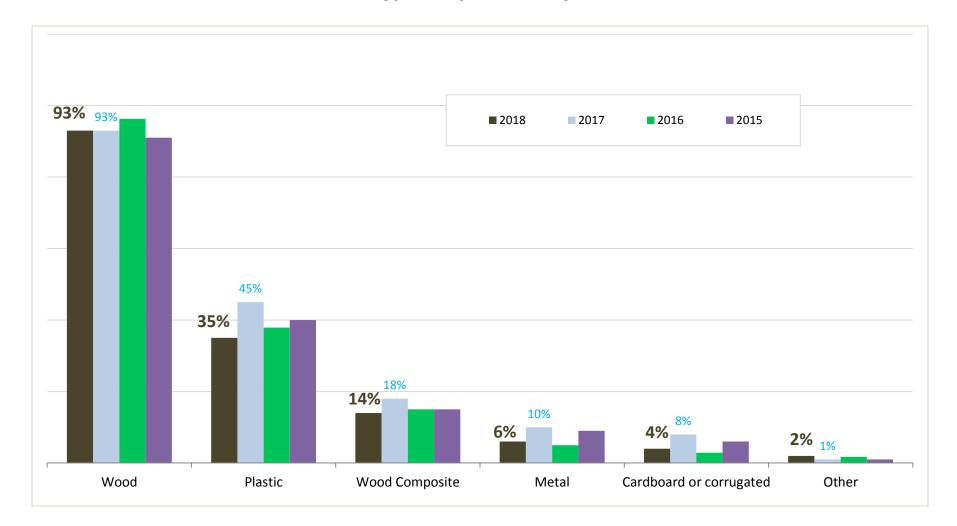


### What are the most important factors in your decisions to use a certain type of pallet?



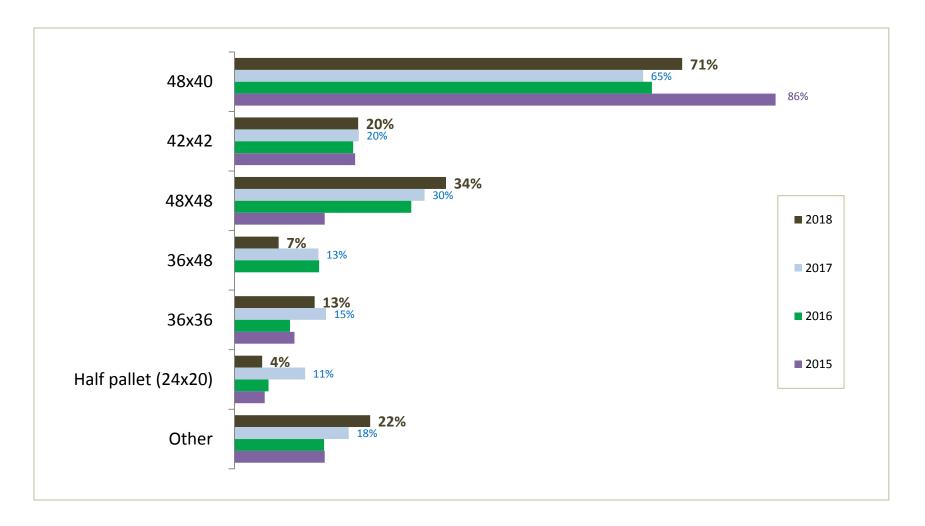


### What types of pallets do you use?



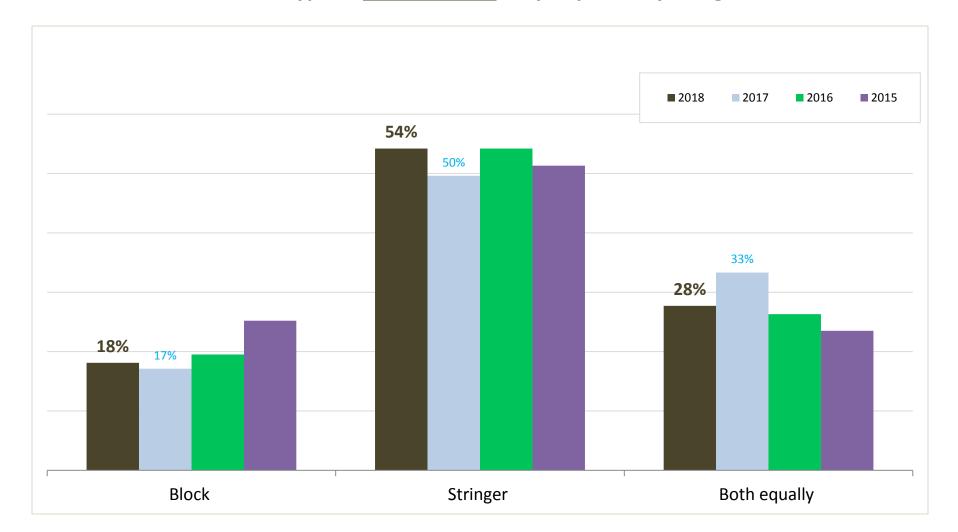


### What are the sizes you commonly use?





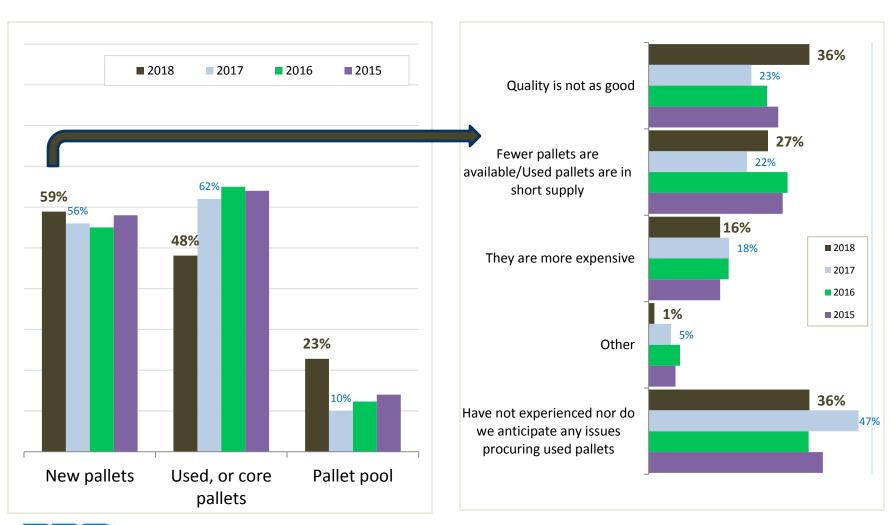
### What type of wood pallets are you primarily using?





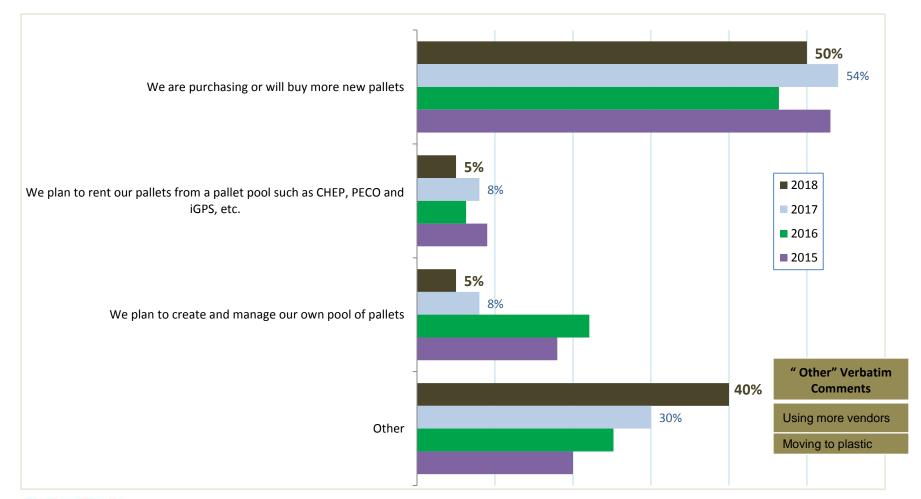
## Are the *wood* pallets you purchase new or used?

# What has been your experience obtaining used *wood* pallets?



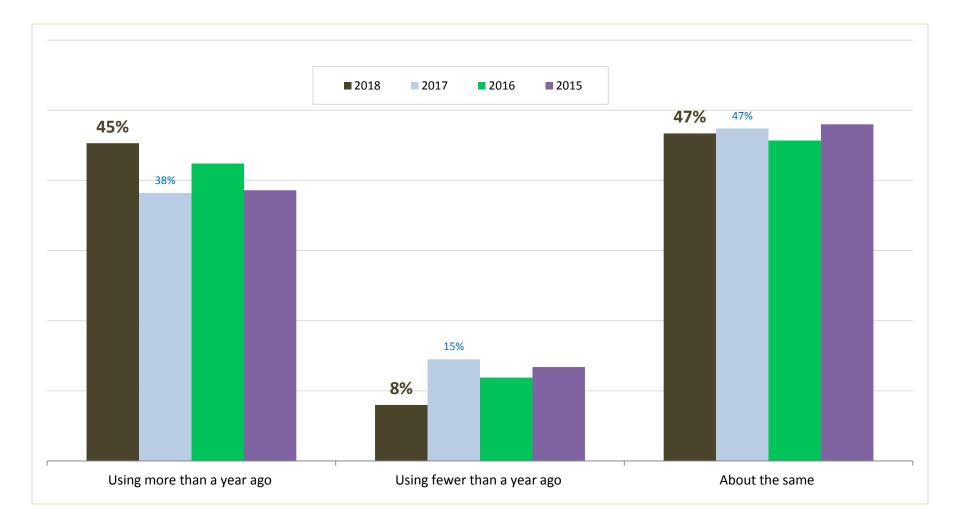


## As a result of any problems with used *wood* pallets, which options have you considered?



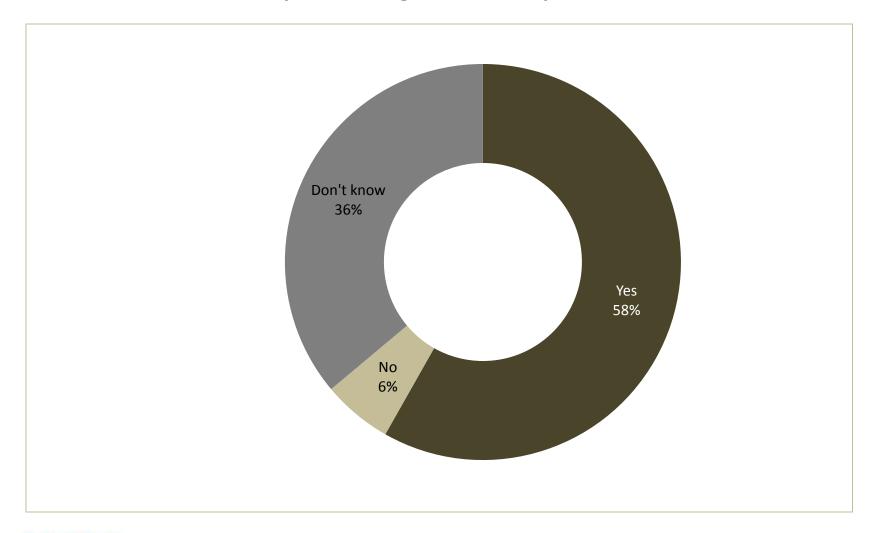


### Which best describes your level of usage for *used wood* pallets?



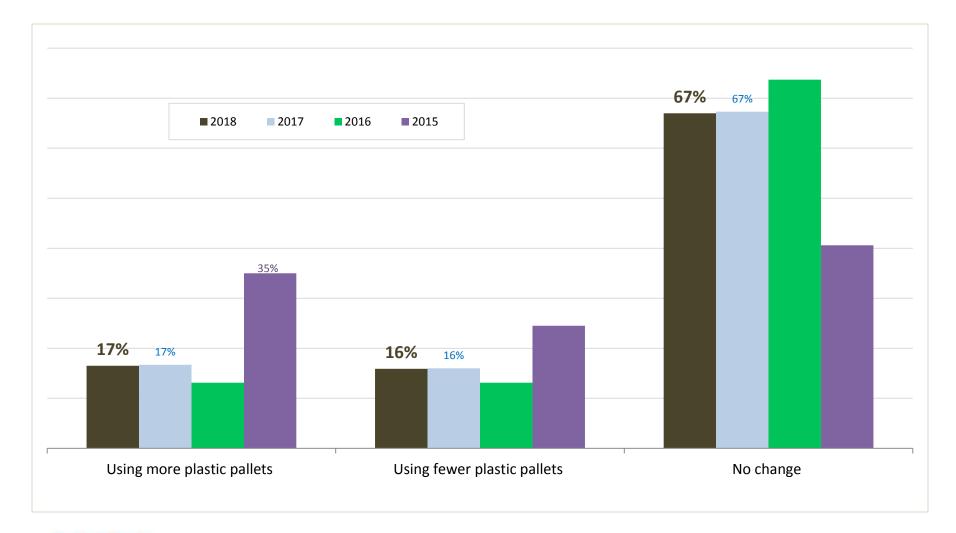


### Are you able to get hardwood pallets?





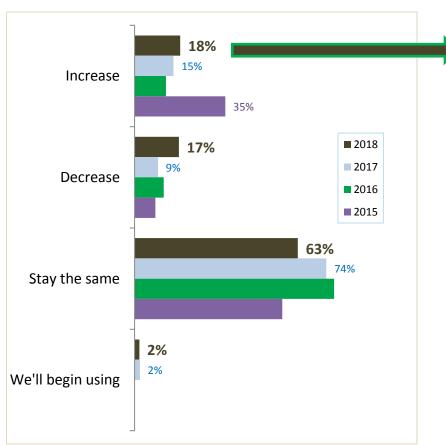
### How would you describe your usage of *plastic* pallets during the last year?

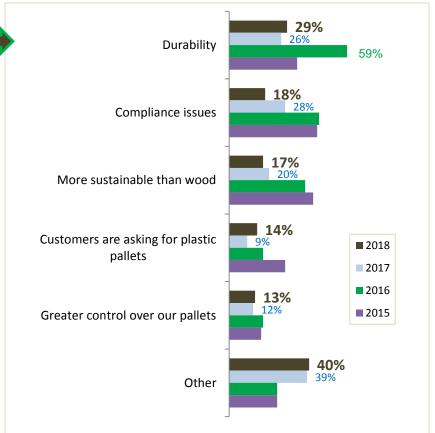




# During the next 12 months do you expect your usage of *plastic* pallets to ...

# Why do you expect your usage of *plastic* pallets to increase?



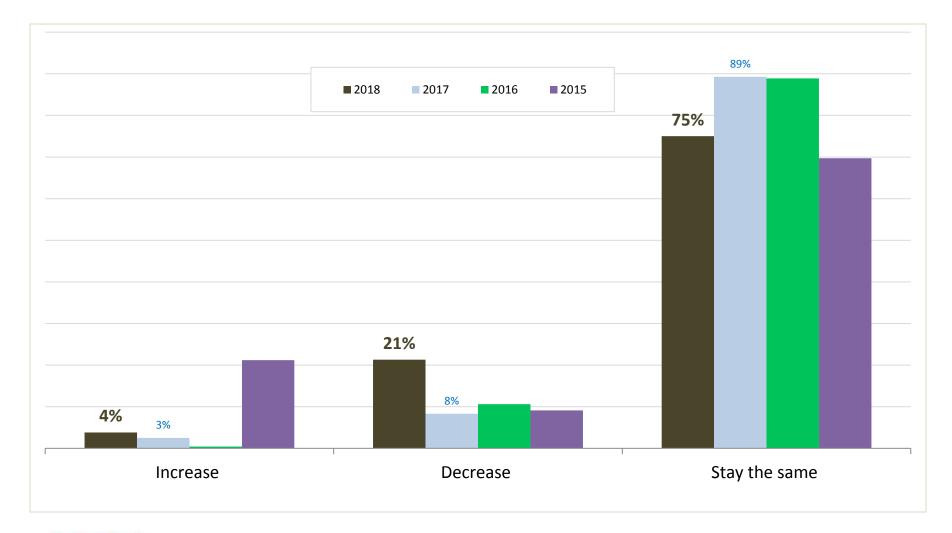


See Appendix for verbatim responses to the question, 'For what purposes are you using plastic pallets?'

Due to the small number of cases, these data are unstable and any projections based on this information may be unreliable. Figures should be used with caution.



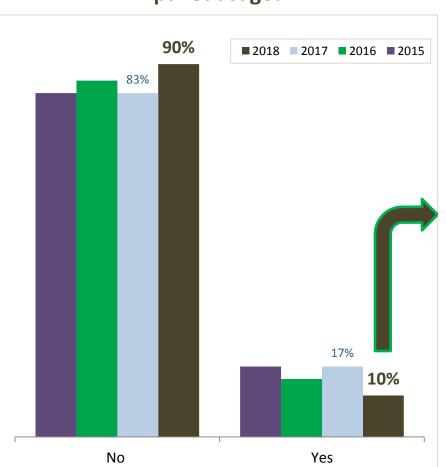
### During the next 12 months do you expect your usage of *metal* pallets to . . .



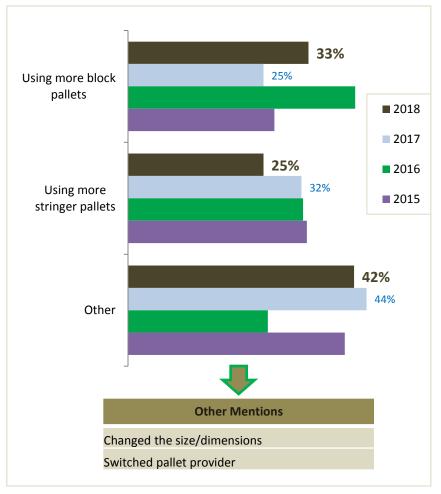




### Over the past 12 months have any customers required you to change your pallet usage?

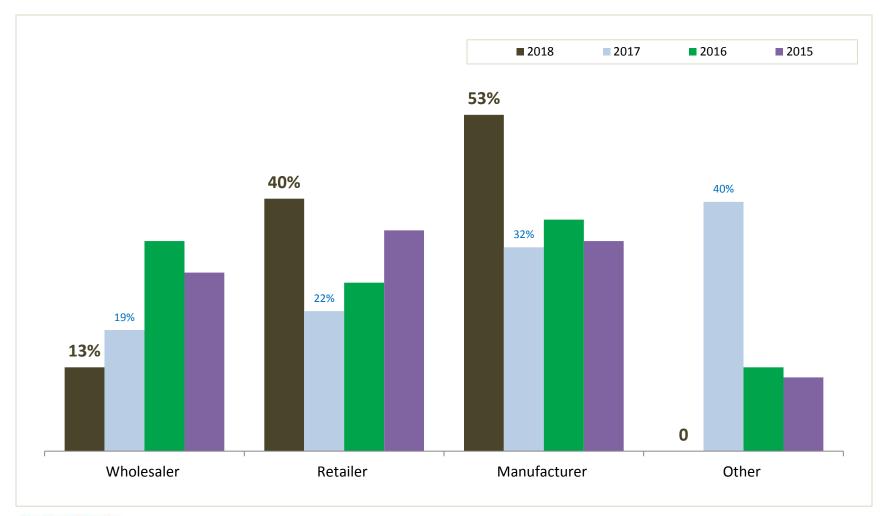


### What changes are you making or did you make?





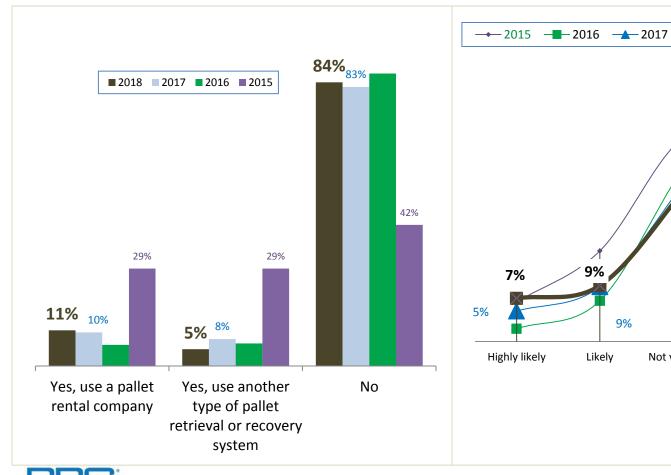
### What type of business is requiring this change?

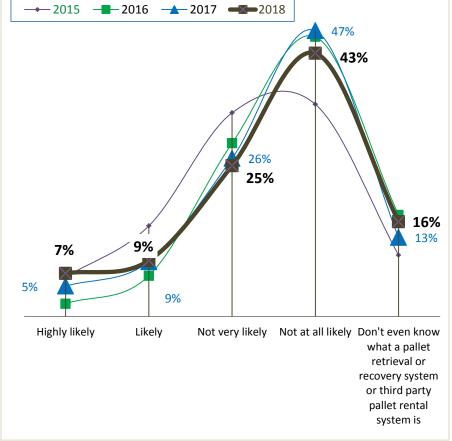




# Does your company rent, plan to rent pallets or use a retrieval/recovery provider?

Would you consider participating in a pallet retrieval, recovery system or a third party pallet rental system in the next year?

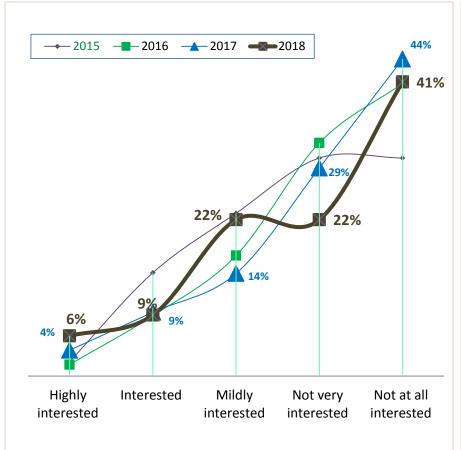


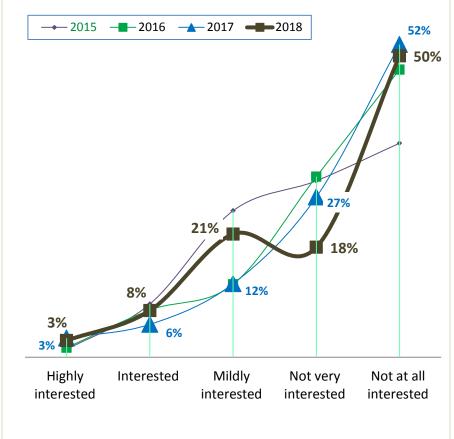




If available, how interested would you be in using a pallet pooling service managed by the pallet industry and that would serve as an alternative to CHEP, PECO and iGPS, 9Bloc, etc.

If available, how interested would you be in using a *plastic* pallet pooling service managed by a company other than iGPS that would serve as an alternative to CHEP, PECO, iGPS, etc.?

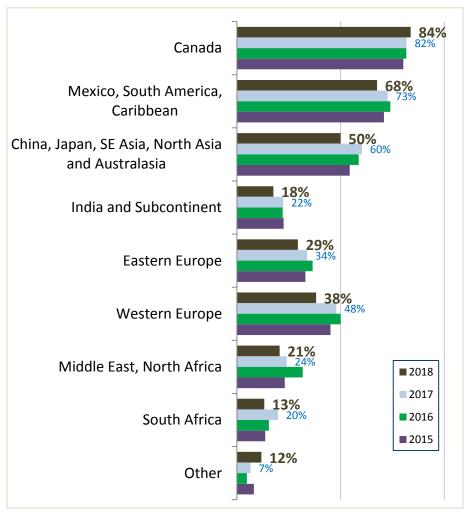




### What is the nature of your shipments?

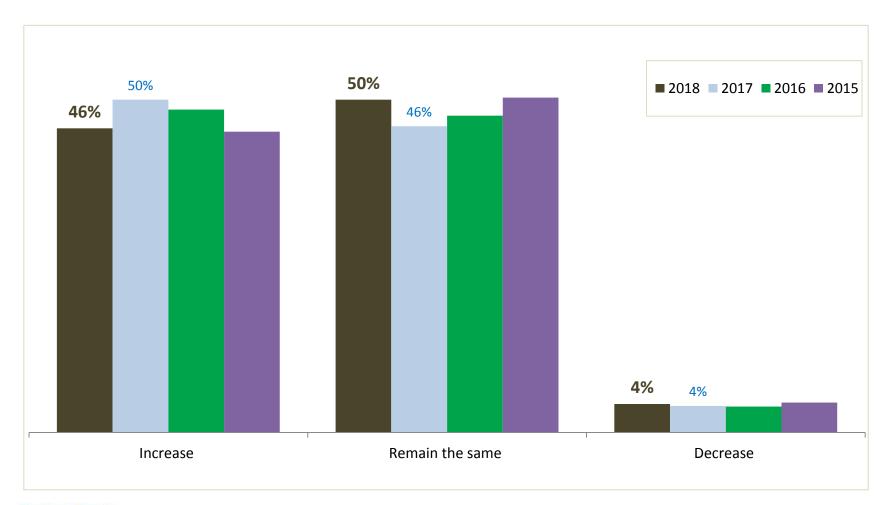
# **■** 2018 **■** 2017 **■** 2016 **■** 2015 52% 50% 47% 45% **3%** 3% International Both Domestic

# Which countries or regions are you shipping?



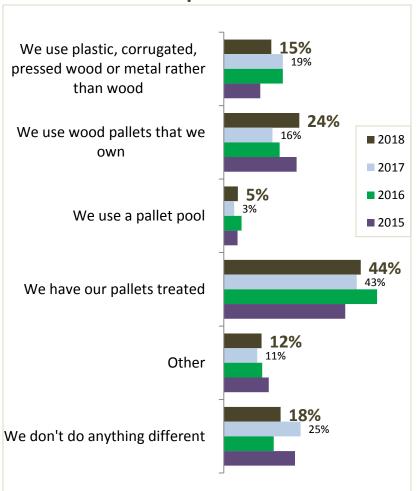


# Over the next two years do you expect the number of pallets you ship internationally to ...?

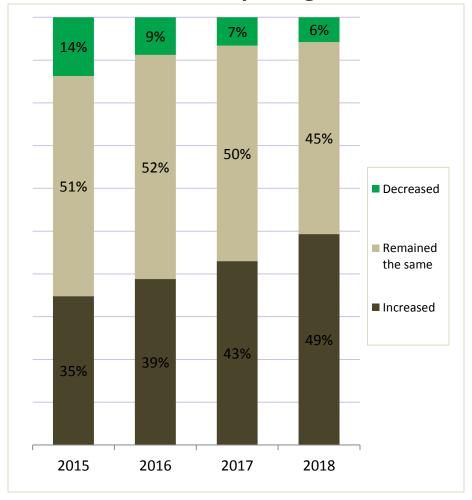




# When shipping internationally, what do you do differently from domestic shipments?

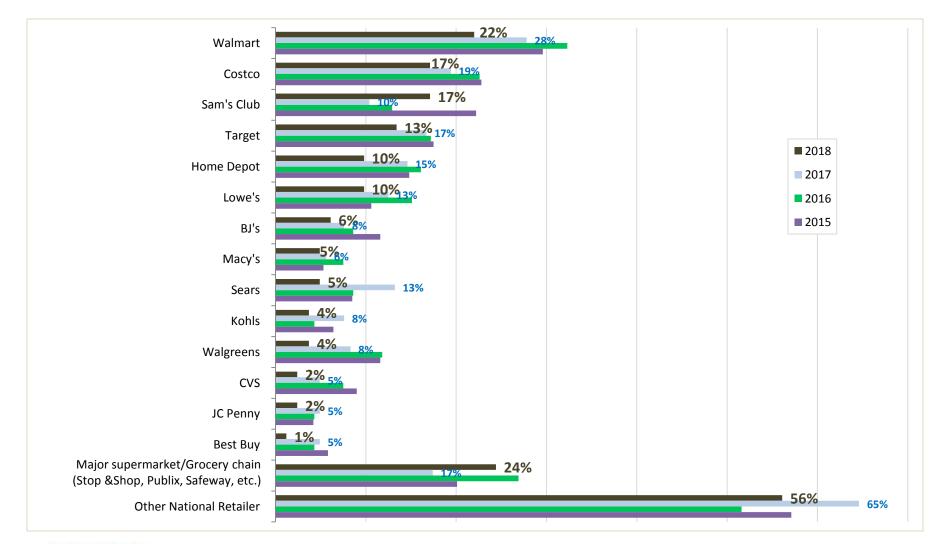


# During the past two years, how has the number of pallets shipped internationally changed?



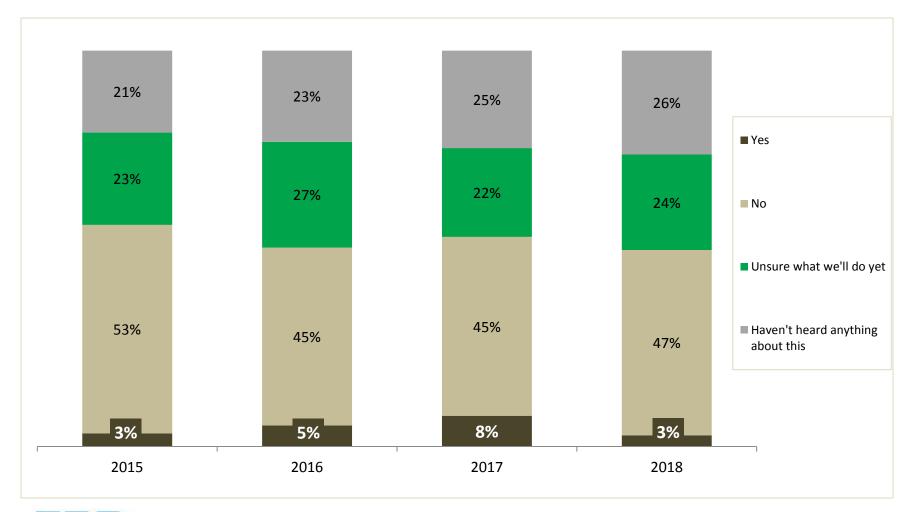


### To which of the following do you ship?





Some retailers are switching from accepting stringer pallets and are now requiring distributors to use block pallets. Is your company planning a similar strategy?

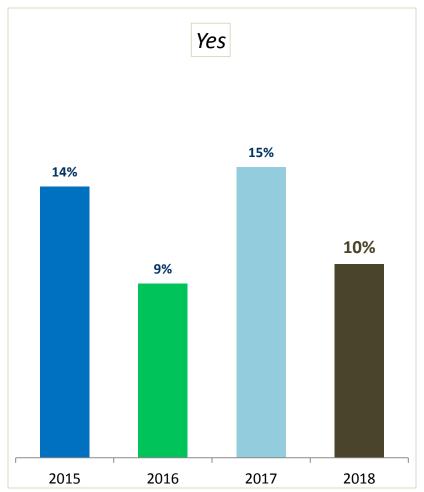


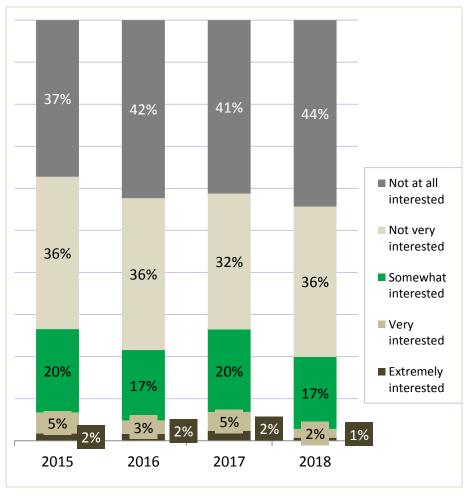


### AN EVALUATION OF THE PALLET MARKET - 2018

Are you now using/have you used in the past a third-party service to help you to better understand the pallet and transport packaging combination (i.e. stretch wrap, shrink wrap, banding, etc.) that's best suited to your operation?

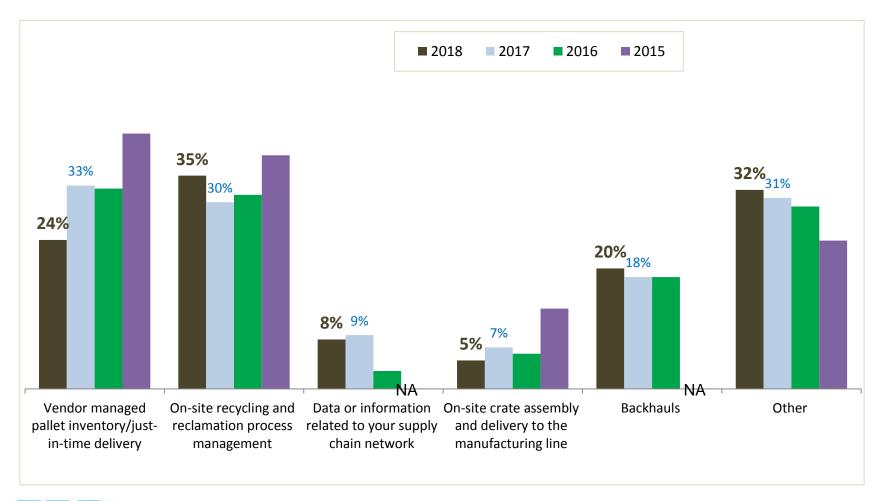
How interested are you/would you be in using a third-party service that would help you better understand the optimal pallet and transport packaging combination (i.e. stretch wrap, shrink wrap, banding, etc.) for your operation?





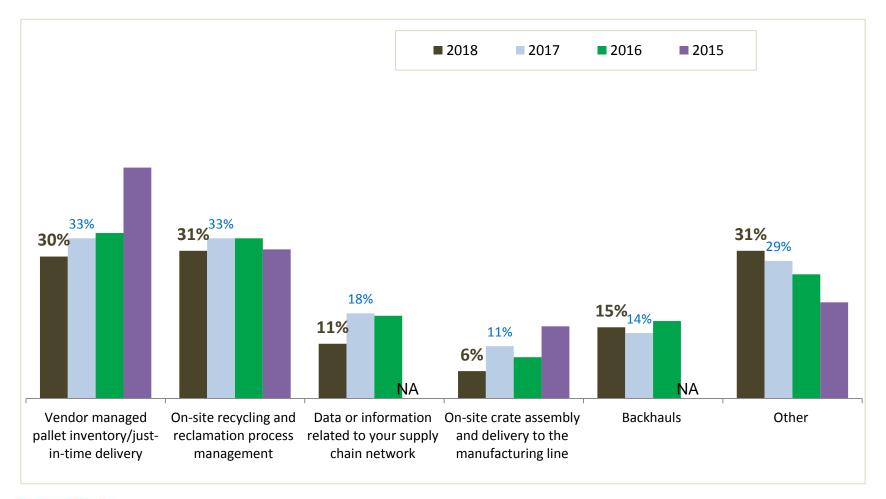


### Are your pallet providers offering any of the following solutions?





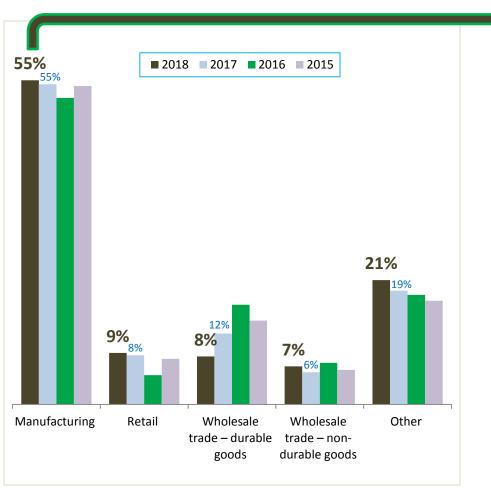
# If available, which might you be interested in receiving from a third-party pallet provider?





# Which of the following best describe the business at this location?

# In which industry do you manufacture goods?

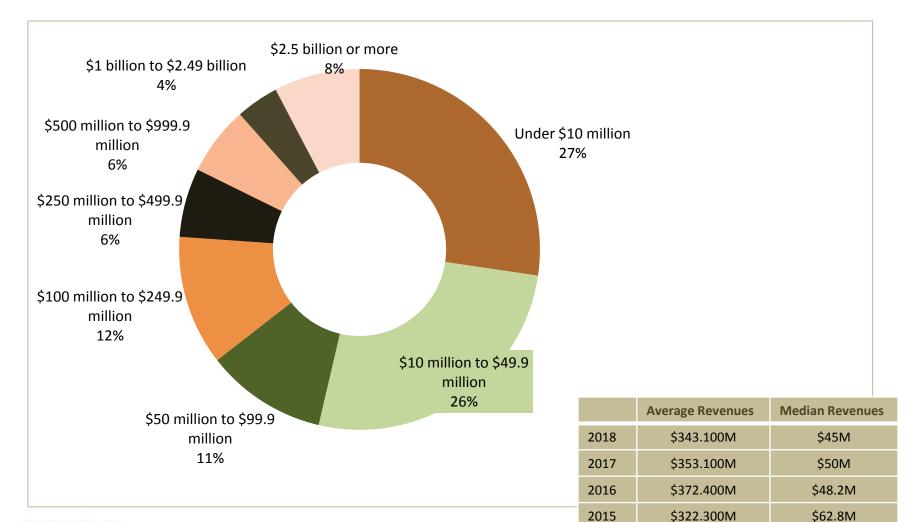


	2018	2017
Aerospace		2%
Automotive & Transportation Equipment	9%	15%
Chemicals/Pharmaceuticals	7%	8%
Computers & Electronics	5%	1%
Electrical Equipment	3%	5%
Fabricated Metals	15%	11%
Food, Beverage &Tobacco	11%	9%
Furniture	1%	3%
Industrial Machinery	10%	9%
Paper/Printing	11%	7%
Plastics & Rubber	9%	7%
Primary Metals		2%
Textiles/Apparel	2%	1%
Other	18%	19%

Not asked in 2015 and 2016



### What do you estimate your company's total revenues for 2018 will be?





### **APPENDIX**

#### Verbatim comments:

- Q. Why are you using plastic pallets? And, for what purposes?
- Q. Why do you say you would be interested/not interested in using a pallet pooling service managed by the pallet industry and that would serve as an alternative to CHEP, PECO and iGPS, 9Bloc, etc.?
- Q. How interested are you/would you be in using a third-party service that would help you better understand the optimal pallet and transport packaging combination (i.e. stretch wrap, shrink wrap, banding, etc.) for your operation?



### For what purposes are you using plastic pallets?

Because they stack within each other and are neater and don't generate nails when busted

Cleanliness

**Closed Loop Distribution Routes** 

Cost

Customer requirements.

**Customer specifies** 

Durability for shipping and in house storage

European imports Restriction on wood

Export

Export product. Avoid insect infestation.

Export shipments requirement

For materials that are shipped to customers, and will return these for re-use.

For returnable containers

For returnable containers.

Free

Green

I recycle/repurpose pallets I receive shipments on.

In some cases it is a customer requirement as part of their container program

In warehouse storage. The pallets never leave our facility. Empty pallets are nestable when stacked to save space.

Incoming

Internal order picking

Internal use to keep wood out of food product in our environment

LIGHT WEIGHT

Limited to inbound international shipments. May be only 3-4% of our pallet throughput

Merchandise. Returns and fulfillment.

Palletize bundles of mail and packages

Plastic Pallets stay in house.

Product shipments in drums, FIBC and boxes.



### For what purposes are you using plastic pallets?

Returnability, reusability, "green", cost over the life vs. wood

Returnable & reuse

Returnable between facilities

Reusable, cleanability

Reuse coming from our suppliers

Shipping over seas

Shipping products overseas

Special pallets for beer kegs, that seat each individual keg. Safety and transportation damage concerns demand the use of these.

Storing finished goods

Storing ingredients and to meet bio security needs

The pallets we use nest, thus take up less space upon return good cost per use

They require less space to store.

They show up

To move larger quantities

To place raw materials on wood pallets on top of them so they can be taken to the productions floor (cleanliest)

To ship to our customers that require them.

Use them internally for scrap conveying. More of a plastic tote and also we use a plastic pallet to transfer plastic rolls of materials that are up to 2000 lbs.

We Manufacture and Recycle Pallets

We use lightweight plastic pallets (8 kg each) for their durability, lightweight to save on air shipping costs, as well as non-wood material moves through customs easily.

We use plastic pallets for all of our crops that we keep in house and wooden as it is being shipped out

We use plastic pallets for in house use only.

We use some plastic pallets as it is a customer requirement. We also use it for internal movement of goods.

Weight and easy to use

When required by customer

Work in process movement. They are a standard pallet that cradles our rolls and store dense.

Yarn storage



How interested would you be in using a pallet pooling service managed by the pallet industry and that would serve as an alternative to CHEP, PECO and iGPS, 9Bloc, etc.?

Why do you say this?

	CHEP is a nightmare to work with.
Highly interested	In the hope that the pooling service is less expensive and less time consuming for my organization than CHEP, PECO, etc.  Known cost
	Sustainability  We currently use a pallet rental company

		Always interested in opportunities to reduce costs
١		Because it allows another service to look after the pool of pallets instead of our customers
١		Might be a good way to keep supply constant
,	nterested	Mostly to learn more about what it is and how it works.
•	mieresteu	Need control over quality and availability
		Next to labor our pallet cost is our next highest expense
		Possibly better turnaround due to availability and quality
		Return stream on plastic pallets is difficult to manage



How interested would you be in using a pallet pooling service managed by the pallet industry and that would serve as an alternative to CHEP, PECO and iGPS, 9Bloc, etc.?

Mildly interested	Always good to look at different options to reduce cost  Anything to save costs  Cost peruse may go down  Curiosity  Depends on availability of the sizes we need; quality of the products and costs  Don't know much about it. We have a good source of pallets currently that mostly meet our expectations. They company has been able to supply us with pallets as our needs have increased over the years.  I can not control this financial decision  I would only recommend this if there is a cost savings.  I'm a pallet manufacturer and recycler. They are my competition  I'm unsure what a pallet pooling service is.  Need to see the cost  Never thought about it  No knowledge of the pallet pooling system  Not evaluated yet  We are always looking for alternatives  We have supplier in Mexico providing unbeatable pricing
	We are always looking for alternatives  We have supplier in Mexico providing unbeatable pricing



How interested would you be in using a pallet pooling service managed by the pallet industry and that would serve as an alternative to CHEP, PECO and iGPS, 9Bloc, etc.?

	Does not fit our needs/usage
	Don't need
	Don't see need.
	It's a cost issue to our purchasing personnel
	Most of our pallets are custom build for the project.
	Need worldwide supply, as manufacturing and distribution is global.
	No current need
	No need
Not very interested	Not that many pallets used here
,	Our pallets program is dictated by the customer
	Pallets often exported
	We do not use pallets as a regular daily item.
	We get more pallets in than we send out. I have trouble finding someone to take the excess.
	We have our own internal pallet pooling operation.
	We make conveyors to handle empty / full pallets.
	We use too many custom sized pallets, or make our own.
	We used refurbished wood pallets to ship our product. Most of our customers do not want their product on pallets, but it is mandated by the carriers we use.
	panets, but it is manuated by the carriers we use.



How interested would you be in using a pallet pooling service managed by the pallet industry and that would serve as an alternative to CHEP, PECO and iGPS, 9Bloc, etc.?

	95% shipments international
	Additional labor required to keep records
	Are pallets are made to our specs and we ship nationwide and they are soft wood.
	Because the vendor pool pallets are free
	Cost
	Cost is too high.
	Customer base
	CUSTOMER CHOICE/SUPPLIED
	Customers require new pallets on all shipments.
	Does not fit our supply chain model
Not at all interested	Happy the way things are
Not at an interested	Happy with CHEP.
	Have individual supply
	I recover my own from inbound shipments.
	Mandatory government contract
	No need
	Not enough volume.
	Not interested
	Not worth it
	Our customer pallet requirements, are high quality one use pallets. The customer will reuse the pallets in their supply chain and recycle when they are done with them.
	Our pallets are custom made



How interested would you be in using a pallet pooling service managed by the pallet industry and that would serve as an alternative to CHEP, PECO and iGPS, 9Bloc, etc.?

	Our pallets need to be new for the customers.
	Our product is food grade and has to be new pallets.
	Purchase my own
	The pallet we use are custom made for the product and as such are not used by any other industry.
	To much trouble to keep up with
	Too expensive
	Too many custom sizes
	Tracking work is undesirable
	Use recycle pallets from our inbound shipments
Not at all interested	We buy our pallets and ship them to multiple end users
	We dispose of wood pallets every day.
	We don't need this service
	We get our pallets for free
	We have our own sources
	We have our own system in place
	We use 2-3 pallets a year
	What we do works
	Worked with CHEP in the past and it was a nightmare. I have no desire to exhaust resources managing pallet inventories and movement.



How interested are you/would you be in using a third-party service that would help you better understand the optimal pallet and transport packaging combination (i.e. stretch wrap, shrink wrap, banding, etc.) for your operation?

#### Why do you say this?

wny do you say tnis?		
Extremely/Very interested	We currently use a third party to assist with this.	
	Any potential to reduce cost would be good.	
	Cost	
	Depends on cost involved	
	I have experience doing it and have resources through ISTA	
	I would only recommend this if there is a cost savings.	
	Most of our shipment methods are customer specified.	
	Never thought about it	
	Possibly better our shipping process	
Somewhat interested	Save money time	
	Want to understand it.	
	We are always looking for alternatives	
	We do have supplier constantly monitoring our operation with timely update recommendation on cost saving measures and misc. production improvement solutions	
	We do these things today	
	We have over 100 different cartons that we place on a pallet. That doesn't change for the entire pallet. What we place in the cartons changes, but we are already at an optimal configuration on the pallet with the existing cartons that we use. A third party has not been able to come up with a way to better	

identify items that can go into a carton more efficiently than what we have come up with.



How interested are you/would you be in using a third-party service that would help you better understand the optimal pallet and transport packaging combination (i.e. stretch wrap, shrink wrap, banding, etc.) for your operation?

	1/3 of our product is shrink wrapped, and 2/3 of our product is shipped lose.
	Already handled at local levels and documented.
	Corporate decision
	Don't see need.
	Everything is working very well now.
	Have done that
	Low volume shipped
	Most of our pallets are custom build for the project.
	Not interested we have it covered
	our pallets program is dictated by the customer
Not very	Our parent company supply's industrial packaging
interested	See no growth at the moment
	We already have a system that works
	We are services by two very good third-party services already
	We currently use a system we have developed for this task
	We customize our own.
	We do it in house
	We have a third party doing these inspections for us now .
	We have adequate internal resources for such an evaluation.
	We have our own sources
	We have spent considerable time exploring and experimenting with the various options available
	We only send out a couple pallets per month.



How interested are you/would you be in using a third-party service that would help you better understand the optimal pallet and transport packaging combination (i.e. stretch wrap, shrink wrap, banding, etc.) for your operation?

		Cost
		Custom design pallet and shipping system
		Customer base
		Does not fit our supply chain model
		I control all of my outbound containers, period.
		In house (2)
		Mandatory government contract
		No current need (5)
ı		Not enough volume.
		Not feasible
		Not interested (2)
ı	Not at all interested	Our company Philosophy is vertical integration which mean if we can do ourselves we will do ourselves.
ı	Not at all litterested	Our management team has all of the resources we need in this area.
ı		Our pallet costs zero
ı		Strict adherence to company policy regarding pallet procurement
		Too expensive
ı		We are not in the business to manage pallets. We use pallets for our inbound floor loads only. We ship
		99% parcel, so we reuse pallets until they break.
		We are too small
		We buy and use our pallets much easier and less accounting
		We do not have a high enough use load to look into this
		We don't need this service
		We make pallet handling equipment. We build all our own MTO pallets/skids
		What we do works

