

## Reducing plant shipping costs

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**O**rganization is the key to an efficient shipping operation. Getting the plants from the greenhouse to the retail outlet with the least amount of labor requires careful planning and execution.

Where possible, the shipping should be separated from the planting area, as both operations may be going on at the same time. In a range having a headhouse, it may be possible to use one end for assembling orders and loading trucks. The area should be large enough to assemble at least one truck load. The doors should allow the van or truck to pass through easily. Good drainage is necessary to remove excess water from plant watering and from ice or snow melting off the vehicle.

Where plants are picked from individual greenhouses, doors should be large enough for a cart or conveyor.

The responsibility for receiving and dispatching orders is usually given to a person who is familiar with the geographic area that is to be served. As the orders are received, they are separated by area and consolidated to make up loads for delivery on succeeding days.

Usually a shipping order is made out. It contains the following:

- Date of scheduled shipment
- Order date
- Customer name and address
- Delivery address if different
- Quantity of each variety of plant
- Location of plants in the greenhouse range (for large operations)
- Truck to be loaded on
- Special instructions to shipping department

Orders are assembled in either of two ways: 1) Individually by going from greenhouse to greenhouse picking the number of flats or pots of a particular variety needed to fill that order and then moving it to the loading areas; or 2) Collectively by gathering total day's needs of each variety, moving them to the shipping area and loading them into the right truck or cabinet.

Where the orders involve small numbers of a large variety of plants, the second method usually reduces the amount of walking.

As a grower, you should encourage your customers to order in standard units. The size of the unit will depend on the type of crop and the market you ship to.

For potted plants, this can be the number of pots that will fit on a cart. For shipments to chain stores, it may be the number of plants that fit into a carton, or the number of cartons that fit a pallet.

A joint effort between the Society of American Florists and the Produce Marketing Association has established box standards for cut flowers and potted plants. Once adopted by the industry, it should result in significant savings in reduced inventory, more efficient loading and less product damage. In addition to 11 basic box sizes, container material specifications and potted plant pack sizes have also been adopted.

Small quantities of bedding plants can be shipped using a pickup or small van. A body holding about 200 flats can be fitted on a pickup. On large trucks, a body holding 1,000 flats or more can be built. Shelves of plywood or sheet metal spaced eight to 10 inches apart are used to allow the flats to slide in smoothly.

Most growers load the flats onto the truck by hand. Usually one person stands on the ground and hands the flats to a second person on the truck. A belt conveyor can also be used.

Carts supported on skids or caster wheels are becoming more popular as a system for handling flats. These are built to hold 50 to 100 flats. They are loaded in the greenhouse and rolled to the loading area where they are loaded by forklift or hydraulic tailgate onto the truck.

Carts make a versatile system for shipping. Several manufacturers have developed units that will move easily along a paved walkway and fit efficiently into a standard truck body. Other features to consider include adjustable shelves, strong construction and large diameter roller bearing wheels that require a minimum of maintenance. Some carts can be folded or disassembled to reduce storage space in the headhouse or in the truck on the return trip. Cost per cart is in the \$300 to \$500 range.

Most large wholesale growers have adopted the cabinet method for shipping. These are boxes about five feet wide by four feet deep by eight feet high and are built of steel or plywood. Seven or eight shelves are fitted inside, spaced nine to 11 inches apart. Every other shelf can be removed to accommodate tall plants. Cabinets are loaded back to back on a flatbed truck and held in place by chains or rails on the truck bed. A forklift is used to load and unload the cabinets. Most growers have enough cabinets so that one set is being loaded while another set is being delivered. One advantage to this method is that any flatbed truck

can be used. The use of leased or rented trucks is common during the shipping season as few growers own enough vehicles. Cabinets can be fabricated by a local welding shop for about \$400.

Both cabinets and carts can reduce error. For example, in your greenhouse, the plants are loaded onto carts. The carts are numbered. Each order to be filled is written on a master sheet which you carry with you. As an item is loaded onto a cart, it is checked off. The cart number is written on this master sheet when the order is completed. The invoice and delivery slip are written from this master sheet by the clerk in the office. The cart number is also entered on the top of the delivery slip so that the driver knows which carts to unload for each customer.

In the greenhouse, with the large number of varieties of ornamental plants grown, order assembly time can be reduced and fewer errors made by identifying each variety with a large sign placed over it. Some growers are also training their drivers in plant identification to help reduce errors.

In the truck, the load must be stabilized to reduce plant damage. Cartons can best be handled on pallets. In addition to interlocking the boxes, banding or film wrapping can be used. Friction load bars, pin bars or inflatable bags will hold carts or pallets from shifting as a result of truck acceleration or braking.

Watering plants before shipment is important especially during the warmer months. Plants will arrive in better condition and will hold their quality for a longer time should the garden center operator or florist not get to it immediately. Some growers are also adding a slow release fertilizer to the soil for plants that may be held for a period of time before being sold.

Temperature protection is important if plants are shipped during very cold or warm periods. Insulated truck bodies should be fitted with heating or refrigeration equipment.

