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SHRINK-FILM TECHNOLOGY FOR THE FRESH PRODUCE MARKET

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Plastic packaging materials used to package fresh produce are primarily polyethylene for bag applications and polyvinylchloride for tray overwrapped products. The primary function of these materials is to containerize the product to facilitate distribution, pricing, and retail handling. Plastic packaging materials produced through shrink-film technology were introduced in the early 1980's to support individual film wrapping of fruits and has recently been expanded to a value added, microwaveable tray overwrapped vegetable packaging program. Shrink films are produced via coextrusion utilizing primarily polyethylene and ethylene vinylacetate resins producing a multilayer structure having design properties such as gas permeability, optics, shrink, strength, and machinability. The oxygen and carbon dioxide permeabilities of these films is sufficient to avoid anaerobic respiration leading to off-flavor development under recommended postharvest handling conditions. Water vapor transmission through these films is substantially less than through a commercially applied wax layer. Physiological deterioration of fruits is reduced by several fold by wrapping because of its effect on reducing moisture loss, but decay can be increased on some fruits because of the development of a water saturated atmosphere around the fruit. Ripening has not been shown to be delayed by wrapping, but color development can be adversely affected. Wide use of shrink films in tbe fresh produce industry has not developed, but commercial prorams are developing for individual wrapped apples and papayas and for the microwaveable vegetable tray overwrap.

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CONSUMER RESPONSE TO CITRUS JUICE PACKAGING OPTIONS

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Orange juice is available to the consumer in an ever increasing array of package forms and sizes. There has been a shift in the form in which consumers are most likely to buy orange juice. This shift is away from frozen concentrate towards ready to serve, primarily chilled orange juice in cartons. Increasing numbers of women in the work force are driving a trend towards convenience in all package food products, including orange juice. Chilled orange juice is perceived to be more convenient than FCOJ. In response to this demand for convenience, several manufacturers have recently introduced FCOJ packaging that is more convenient to thaw and handle. The chilled juice category has also experienced a proliferation of new packaging options. These include foil lined cartons and cartons constructed with high performance plastic materials, aseptic packs and coextruded plastic bottles. The success of these and other packaging options will depend upon whether they offer the consumer one or more useful benefits.

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PACKAGING DEVELOPMENTS IN FLORIDA FRESH FRUIT AND VEGETABLE INDUSTRIES

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Abstract. **Florida's fresh produce industry has been slow to adopt some of the improved packaging developments which are standard in other areas of the country and in Europe. Historically, packaging in Florida has been for the purpose of containment and not for protection, except for a few produce items. Many vegetables are still bulged packed, causing damage to the commodity and packaging. For example, 15 years ago Florida citrus shippers started using a stronger and a 1/2-inch-deeper box for export. If the box is better for export shipments, why not use it for domestic shipments? Standardization of packaging and unitization (palletizing) of produce containers has not developed as rapidly in Florida as in the rest of the United States and Europe. The one exception has been the Florida tomato industry, which is using a standard (metric-sized) box that is unitized on pallets. Another industry**