

## SUGGESTED TRENDS IN THE AVOCADO AND LIME INDUSTRIES

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During the early fifties the intense enthusiasm of the burgeoning fruit juice industry brought a temporary wave of high prices and profits to Florida' Lime Growers. Cannery outbid each other for the fresh fruit, boosting prices up as high as \$120.00 a ton or \$3.30 a bushel. While these happy events were occurring to Florida limes a parallel situation was happening to the California lemon industry.

This prosperity was short lived; however by 1954 the high prices attracted heavy supplies of lime juice from Mexico and lemon juice from Italy. These new supplies together with a heavy high cost carried-over inventory, coupled with an unusually cold summer that year caused the demand for juice limes and lemons to practically cease.

In 1955 the California lemon industry abandoned their price support program on processed lemon products and the price on juice lemons quickly dropped to \$40.00 a ton and has since dropped down to the \$20.00-\$30.00 bracket where it has remained ever since. The new low price of lemonade together with the heavy advertising and excellent marketing facilities of the Sunkist organization have created a competitive situation with which the much smaller lime industry finds it difficult to cope.

There is another feature of the limeade business which makes matters even more difficult. Limes start coming into significant production in May, reach a peak during June and July and maintain a good level through October after which they decline markedly in volume. In general growers find that the new crop of limes brings better prices when shipped as fresh fruit up until the middle of July. For this reason the processors get only the off-grade fruit until that date. About the first of August however, the price of fresh fruit drops off and the flow of all grades of fruit then finds its way into the hands of the processors. However since limeade is primarily a hot weather drink the wholesale demand for limeade ceases in early August since by the time the new concentrate would reach the customer the hot weather would be over. Thus it can be seen that the processor must put up his pack in August, September and October and then carry it in frozen inventory until the demand picks up in the spring. This procedure is expensive and has a tendency to discourage processors.

Limeade is an excellent product and as a thirst quencher and cooler has no equal. A similar product frozen lime juice, unsweetened, has been developed for institutional use and particularly for the military services where it is used to make limeade. Unfortunately both of these products do not reach the volume whereby they furnish a firm price support to the fresh fruit.

Let us look at Florida Avocados for a moment. In a normal year Florida produces about 600,000 bushels of avocados. Of these about 15% are graded out as unmarketable

mainly because of scratches, scars, etc. Weather conditions occasionally cause several varieties to come to market simultaneously, during which period considerable quantities of surplus fruit is dumped causing a loss to the grower and a waste of good food which should be used. One processor has attacked this problem by developing a frozen avocado spread made from mashed avocados, lime juice and spices. It is an excellent product but it is catching on very slowly due to lack of merchandising. Its use has had no significant effect on the volume of surplus avocados.

In view of the above it is readily seen that the by-products currently developed from avocados and limes are insufficient to turn the off-grade and surplus portions of these crops to profitable account. This situation is doubly unfortunate in that a good demand for off-grade and surplus fruit puts a firm floor under the fresh fruit price structure and thus brings the grower a double return.

We must face the fact that avocados and limes are generally considered luxury or specialty fruits and that the advertising means do not currently exist to cause them to be considered as staples in the near future. It is entirely possible that research could develop new products, by products and new uses of these fruits which would return sufficient income to the grower to justify new plantings resulting in greatly increased acreage together with new industries dependent thereon.

Let us see what opportunities present themselves for research and for subsequent development and exploitation. There is currently on the market one or two domestically bottled lime juices, whose flavor in the opinion of this speaker is quite remote from the delicate bright flavor of fresh lime juice. We do not believe that these bottled juices will win many adherents to the lime banner. Improvement of this type product we believe to be entirely possible since the British make a product of high acceptability known as Rose's Lime Juice a bottle of which may be found in every bar from Sydney to Stockholm, including those in the U. S. A. We cannot see why some Florida processor with a good distribution system could not match this product and outsell the British with it in this country and possibly elsewhere.

There are certain uses to which many people in the production area have been putting limes for many years. It is suggested that research could stabilize applicable lime products and thus make it possible that these uses could be extended to a broader population. Herewith are some examples:

1. A cup full of lime juice in a bath-tub of water is pleasantly relaxing and delicately perfumes the body. Use in bath salts, soaps or bath oils is suggested.
2. Lime juice added to rinse water makes the hair clean and shiny and removes soap. Use in hair preparations is possible.
3. Many old timers in South Florida and the Keys use "Old Sour" which is fermented lime juice seasoned with salt. This preparation is used on all fish and shell fish dishes and on meats and in salad dressing. Use of lime juice in seasoned sauces and dressings is a possibility and possibly "Old Sour" itself could be processed for commercial use.
4. The lime skin when scratched at grove side gives off a delightful bright cool clean aroma. However after three or four days the brightness of the aroma fades. If the skin

oil which gives off these aromas could be stabilized we believe that lime oil could be utilized much more than at present in the flavor industry and might have a future in the perfume industry also.

5. It is not difficult to prove that a wedge of fresh lime juice squeezed into a glass of orange, pineapple or tomato juice adds tang or zest to the original drink. The same holds true of the various fruit punches and mixed fruit drinks, canned or frozen which are now heavily advertised. It would seem a smart idea for some processor to evolve a formula whereby fresh lime juice may be added to the other processed juices to improve the flavor. Considering the vast volume of these drinks the possibilities for limes are limitless.

Avocados are similarly in need of research. A moment ago we mentioned avocado spread. It is our belief that if this product were more highly seasoned, given a Mexican name such as 'Guacamole', and the can registered with a Mexican or Spanish motif, a good market could be developed for such a product primarily in the Southwestern U. S. A. Its use as a dip for bridge luncheons and cocktail parties could give it a wide use.

Because of the high nutritional value of avocados we believe there is a considerable future for that processor who will prepare off-grade or surplus avocados into an ingredient for pet food or animal feeds. We have noticed that dogs in the production area love to eat avocado drops and during this period they have high energy and develop a particularly glossy coat. We believe that exploitation of this idea could develop into a very considerable business and could take care of much of our surplus.

There appears to be some evidence that ingestion of avocados may have a beneficial effect of lowering the cholesterol content of the blood. Some work with this idea is now being done by the University of Florida at Gainesville. Should this prove successful the removal and stabilizing of the element causing the beneficial effect would appear to be the next step. Since there is a great demand for appropriate vegetable oils which have this property, a great future could be opened up to the avocado industry.

Avocados have a bland, smooth and buttery texture. Many people feel that this food has a soothing effect on the lining of the stomach and intestines. Others have used it to soothe chapped and dried skin with success. Research may prove the oil of the avocado to be an efficient emollient with commercial possibilities in soaps, hand creams, face lotions and also furnish the soothing ingredient in preparations for the relief of inflamed digestive tracts.

Today we see great effort put out by our Governor, The Florida Development Commission and various private and public civic agencies to entice new business to come and settle in Florida. Most of these businesses would have to import their basic materials from outside the state. We suggest that here we already have the basic materials being raised on 15,000 acres of Florida land currently in production. Why not take steps at comparatively small expense to develop to their fullest possibilities those products that we already have, before we spend hundreds of thousands of dollars to bring into the state industries whose economic applicability to Florida has not been proved or is doubtful. Unfortunately South Florida has few foods research facilities. What is needed is a processor with vision from the food producing areas of the state to visualize a future in which he can be the first and sole entrepreneur.