The production date is usually 13 to 16 weeks before introduction, due to the volume and the number of units we have to produce. The component people also have to be producing prior to this to meet initial production schedules at Avon.

Purchasing's responsibility does not end, however, when everything is ordered, but only after everything is delivered. Once production of components begins, Murphy's Law usually goes into effect. "If anything can go wrong it will, and the worst thing will go wrong first." Our job is to cure Murphy's Law and expedite all the components to the manufacturing location regardless of what happens. There is no excuse for not delivering the finished product. When the customer wants it, utilizing Avon's sales approach, the customer gets it.

## What future essential oils?

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To bring today's fragrances to market is a monumental feat. Elaborate marketing plans, packaging, fragrance profiles, and distribution arrangements are all accomplished with an air of scientific expertise.

With fragrances in the United States alone reaching two billion dollars and growing, a bit more should be understood about the lowest profile side of this creative effort, the acquisition of essential oils.

The consumer is often made aware in advertising of romantic names such as patchouli, orris, vetiver, verbena, tuberose, and sandalwood, but learns little about what goes into making these precious materials and where they come from.

The essential oil industry is basically an agricultural endeavor, being affected favorably or adversely by socio-economic, political, and demographic trends.

Agricultural economy depends naturally on a balanced use of land and labor. If balances shift, either because land values are put to better use or labor is able to obtain more gainful employment elsewhere, problems develop.

Fortunately for the essential oil crops, new areas of propagation have been found when the above-mentioned balance has shifted in the traditional production areas.

A prime example of this is the almost complete shift of traditionally Spanish and French products to North Africa. Examples are oil of rosemary, oil of geranium, orange flower absolute, other orange floral products, and jasmin to name a few. Today we can find a host of products still exported from Grasse but originating in Morocco, Algeria, Tunisia, and Egypt. Products from these areas are naturally somewhat different from the originals. Perfumers skillfully blend new origins to create a product that replaces the traditional without drastic differences. New creations, of course, utilize the new source materials.

The essential oil industry understands the plight of perfumers and marketers who create

Pictured above are (seated, from left) Pearl Frew, Avon Products Inc.; Jill Resnick; Kay Colton, Executive Director of CCW; (standing, from left) Stanley E. Allured, Moderator; Stephen R. Manheimer; Ron Dintemann; John Day; and Carlos Benaim.

products that will be mass marketed in potentially huge volumes. Should natural products be used where there are questions of availability? The natural product industry and synthetic aroma chemical industry coexist to help answer this problem. These industries are complementing, not competing.

Natural products now have a smaller total share of all fragrance blends than in the past. This is understandable, since price restrictions on fragrance compounds do not allow the incorporation of large quantities of natural products. New aroma chemicals have augmented the use of naturals. Where a perfumer five years ago might have been afraid to include a natural product because of availability, now he can blend with great success. This new tendency has offered the marketplace today's fashionable fragrances: fruity, floral, woody, and oriental blends.

It might be useful, since many of you are unfamiliar with how essential oils finally get to New York, to review the three basic types of production and collection. Appreciation of this will help you understand the evolution taking place and the healthy future before us.

The type of essential oil production most common to underdeveloped areas, and the least costly in terms of man/dollar/hours, is the traditional field still. This production unit is more often than not fabricated out of used parts, including old oil drums, drainpipes, and all other imaginable spare parts. The basic principle is simple: fill a pot or still with plant material, steam it, collect the vapors, and condense. The oil and the water will separate in anything from Pepsi bottles to elaborate florentine flasks made out of milk cans. Anything goes as long as it works.

Examples of this are seen in the production of rosemary and armoise in Tunisia, clove leaf in Indonesia and Madagascar, and patchouli in Indonesia. Even certain floral oils, such as cananga and ylang ylang, are produced in this way. Oil of petitgrain from Paraguay, oil of citronella from Java, oil of lemongrass from India, and oil of pimento leaf from Jamaica come to us from these humble circumstances.

Related almost always to these primitive production methods are the traditional gathering and marketing structures. The oils mentioned are usually produced by small farmers; the collection of the plant material and distillation are carried out generally by the owner and his family. Their expenses and labor are not really a factor in determining the prices of the oils. This is accomplished by the laws of supply and demand. After the oil is made ready for sale in quantities from 2 to 200 kilos, the producer will then sell it to a collector. The collector, in many cases, can be a store owner in some rural district. The farmer will barter the oil, now given a local value, for cloth, sugar, kerosene fuel oil, and other hard goods. The store owner, since he has some small amounts of capital, will stock the oil in quantities of 2 to 500 kilos and will sell it when he feels the time is right. Following this progression, the sale will then be made to an agent of a larger collector and exporter, who is retained on a commission basis.

The traditional "bushtrading" is truly an important backbone in today's essential oil industry. Since these exporters are only interested in a profit at the end of the line described above, they are only stimulated from outside interest such as New York, London, or Paris. These exporters might also be involved in other commodities such as spices, skins, coffee, fibres, and other native produce in their areas.

Tax collections and financial regulations are hard to control in these developing nations. Many of the exporters are able to manipulate and parlay their dealings into greater profit than is apparent from the selling prices of the oils themselves.

As long as bush trading exists in a profitable atmosphere and there is always a chance for the exporter to make a speculative profit, these activities will continue. It is the job of importers worldwide to communicate the needs of their customers to the producing nations to assure no dislocations in the supply scheme.

The second most important link in getting essential oils and other natural products to market is the producer/exporter. Here we have a combination of modern and old-fashioned techniques. To illustrate this, we can look closer at oil of lavandin from France, oil of ylang ylang from the Comoro Islands, and floral concretes and absolutes from North Africa.

The producer/exporter, as opposed to the trader previously mentioned, has a proprietary interest in his product. He can maintain quality and is willing to accept new methods of production in order to keep up with demands. He is interested in producing what the industry needs and can react quickly to trends. He is also willing to try new products, even if not profitable yet, thereby offering new tools.

Most of the stills and volatile solvent extraction facilities installed by this type of producer are quite modern. The plant material to supply these installations, in most cases, is cultivated. Lavandin, more than ylang ylang, has evolved to more modern techniques of cultivation and harvesting, although there is hand-harvesting still in evidence today on the steep hilly areas in the south of France. Elaborate harvesting machines are used elsewhere.

Due to the cheap availability of hand-labor on the Comoro Islands, every ylang ylang flower is plucked by hand. Political eruptions in the last few years have disrupted the quality of ylang ylang oils, though not really the supply. Fortunately this is now behind us as the more radical elements have been ousted. Realignment with France is expected and the supply and quality of this valuable floral oil will improve. (Sometimes we get more information about our products through the newspapers than anywhere else!)

North Africa, including Morocco, Algeria, Tunisia, and especially Egypt, has now earned its place as the Grasse of the future. These locations, under private and government guidance, are assuring a future for exotic floral products once counted out by the perfume industry. It is hoped that these newly established sources will receive additional encouragement for their efforts. They should provide a sound future for the needed floral products so valued by perfumers.

The third type of production facility is the cooperative. Cooperatives are fully integrated producers, collectors, and exporters. They control the size and prices of crops. Their facilities are generally modern and, in some cases, ahead of their time.

There are many pros and cons to be said about the collective or cooperative concept. At the present time there are cooperatives in Guatemala, Mexico, Haiti, and Italy, as well as collective production schemes in the U.S.S.R., Eastern Bloc countries, and China. We also have cooperative ideas operating in the United States for citrus essential oils.

Cooperatives in foreign countries usually have some government involvement, and governments, because they are bureaucratic, often get entangled in poorly conceived projects. The cooperative effort can be successful but initial feasibility studies must be made by competent people, as getting involved in already overproduced essential oil products can be disastrous. Careful studies should include consultation with professional essential oil traders.

Cooperatives, unfortunately, also have been subject to manipulation by interested individuals and/or government rules. Unrealistic prices can be set; unrealistic marketing policies and other problems can eventually cause the failure of the effort.

On a positive note, cooperatives can go far toward guaranteeing producers of flowers, roots, and other essential oil bearing materials a fair return for their efforts, thereby avoiding the price swings in a purely supply and demand market. In the future, cooperatives might also offer other advantages, such as centralized collection points for raw materials, centralized distillation, bulk lot offerings, technological assistance for members and, hopefully, good, intelligent marketing.

Cooperatives and collectives are also attempting to cultivate materials that, formerly, were available only in the wild. Many experiments are now underway.

This will eventually assure that essential oils, dependent formerly on native labor or unsophisticated production methods, will survive this rapidly industrializing world.

We also hope to find new sources of essential oil products in China, a relatively new trading partner of ours. We are quickly establishing ties with this nation to assure supply of traditional materials at fair prices, in the quantities we need now and in the future. We are also exploring the vast library of plant materials available from the continent nation so that new products will be offered to stimulate creativity. In China, because of the controlled economy and the need to develop exports, we expect that the essential oil industry will be considered important for serious development. Additional very positive developments should be forthcoming from Southeast Asia, Indonesia, Indía, and South America.

A review on the basic elements of the essential oil trade makes clear the great possibilities for the future. Natural essential oils are the perfumer's oldest tools and are going into a new phase of development to keep pace with today's changing market trends and needs.

Perfumers have recognized that their adaptation to new sources of naturals is serving their interest to create high-quality fragrances at all price levels.

Communication between the essential oil supplier, fragrance supplier, and marketer must be improved. We are not always in a position to know which odor areas interest you. Your most creative fragrance ideas might be available today, with the right combination of natural products and natural-like aroma chemicals recently developed. This potent combination now allows for the greatest creative effort ever possible.

The essential oil industry can meet the challenges ahead—we await the opportunities.