



# Flavor Bites: Flavor Creation in India

An outsider's guide to formulating for this booming market

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I love India. It is a fascinating country to visit, and has the imminent potential to become the world's largest flavor market. I have traveled to India on occasion for many years, and was lucky to be closely involved in the Indian market, especially at a time when it was not easy for foreign companies to gain a toehold.

India hits you full force as soon as you step out of the airport. Even when you arrive in the wee hours of the morning, you are assaulted by waves of noise, bustling humanity and powerful aromas. In fact, a friend once aptly described India as "functioning anarchy."

## Flavor Preferences

Flavor preferences in India are as anarchic as everything else. While some linger from the time of British sovereignty—especially in the bakery and sugar confectionery segment—many are uniquely Indian. At the same time, US flavor profiles have a certain degree of influence, but are generally less prevalent than in the rest of the world.

Many of the flavors currently on the Indian market are relatively traditional, but there is always a push from customers to make them more modern and realistic. However, this change is happening gradually, and it is wise to tread carefully—too big a change may not be acceptable to consumers.

In my experience the top 10 flavors in India, in descending order, are orange, lemon and lemon lime, mango,

vanilla, chocolate, strawberry, butter, pineapple, banana, and raspberry. Meanwhile, rum, whisky and brandy flavors are widely used in alcoholic beverages. However, in addition to these, flavorists working in this market should also be familiar with some fragrance-orientated flavors rarely found in Western markets, including *kewra*, *pan* and rose.

It should be noted that importing raw materials in India can be an expensive and challenging process. It is usually wise to make flavors based mainly on raw materials that are already available in the country.

## Top 10 Flavors

**Orange:** In India, this flavor is primarily used in beverages and, to a lesser extent, in sugar confectionery. Oxidation stability is particularly important in such a hot climate, and so the Indian market usually has strong, stable, fruity notes from ingredients such as ethyl butyrate and ethyl acetate. These flavors may also have noticeable vanilla notes from vanillin or ethyl vanillin.

**Lemon and lemon lime:** Lemon and lemon lime flavor is used in beverages and sugar confectionery products. Again, stability is important, but the lemon flavors are strongly weighted towards citral. Lime notes are rarely derived from distilled lime oil ( $\alpha$ -terpineol)—the type of lime

familiar in the West. On the contrary, they are usually based on cold-pressed lime oil, with many possessing a uniquely Indian "sweet lime" character. This character can be replicated



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by incorporating a little orange oil with traces of sweet components such as  $\gamma$ -nonalactone and vanillin.

**Mango:** Indian Alphonso mango flavors are unique and powerful. Their profile is always heavily skewed towards the character of mango skin and find use in beverages and confectionery products. Some useful raw materials that can help to achieve this mango skin effect include myrcene and diphenyl oxide.

**Vanilla:** Vanilla flavors are mostly used in bakery products. Indian flavors rely heavily on vanillin and ethyl vanillin, often with the addition of heliotropin and  $\gamma$ -nonalactone. In addition, buttery notes, especially those from acetyl methyl carbinol, are occasionally used.

**Chocolate:** Although Indian chocolate flavors are primarily used

in confectionery applications, small quantities are also used in dairy products. The character emphasizes vanillin and creamy lactones and minimizes pyrazines.

**Strawberry:** Strawberry flavors are less popular in India than in most other countries. They are used in beverages, confectionery and dairy applications and are characterized by relatively low levels of green notes and noticeable balsamic, cinnamate notes.

**Butter:** In India, butter flavors are very popular in bakery applications. The flavors must be heat-stable and are usually based around acetyl methyl carbinol, butyric acid and butyl butyrolactate.

**Pineapple:** This profile is used in beverages and confectionery. The major components are often ethyl butyrate, allyl hexanoate and ethyl maltol.

**Banana:** This profile is mainly used in confectionery applications. In most Indian flavors, iso-amyl acetate and vanillin are accentuated, and eugenol is toned down.

**Raspberry:** Raspberry flavors are used in confectionery and are normally dependant on violet, ionone notes, frequently with little or no green character.

## Fragrant Flavors

**Kewra:** Kewra flower flavors are popular in the Middle East and South Asia. They are mainly based on phenyl acetaldehyde dimethyl acetal.

**Pan:** Although *pan* flavors vary from region to region, they essentially consist of musk flavors, with an additional powdery, violet ionone character.

**Rose:** Rose flavors are very widely used in India. They are usually based on citronellol, and often comprise significant levels of ionones.

## Social Factors

There are myriad local languages spoken in India, with Hindi being the official national language. However, English has proliferated among the populace, and hence, communicating is not difficult for English speakers.

Indian people are open and friendly and will expect visitors to

be the same. One will have access to decision makers in a way that would never happen in the West. In many cases, the owner of a company is accustomed to making decisions on the spot. Making contact with the technician working on a project is helpful, but they will probably be less influential than one might imagine.

Also, bargaining is a national sport in India that spills over into the business world. Customers will often suspect that one is keeping something in reserve and possibly not showing the best flavors first. Hence, it is better to keep something “up your sleeve,” so as not to get caught out when this happens!

## Practical Advice

Visitors should apply for their visas in good time—India belongs squarely in the first world for business competence, but it is distinctly stuck in the third world when it comes to officialdom. One can travel safely anywhere in India, and a purposeful demeanor will effectively repel beggars. Visitors should take common sense care with food, and especially avoid ice cubes. They should also respect local customs. Visitors will be welcomed everywhere, but they may be expected to remove their shoes in some locations, especially those with religious significance. Not to worry—the shoes will still be there upon one's return.

In addition, India is home to some of the greatest sights in the world, so if one is lucky enough to travel to India on business, they should make certain to get some free time. The Taj Mahal in particular is truly one of the wonders of the world. The food is also spectacular, and usually quite different from the fare at many Indian restaurants in the West. *Murgh makhani* is a perennial restaurant favorite in India. It is basically chicken cooked in butter with spices and fenugreek leaves—probably not good for one's cholesterol level, but definitely worth it.

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