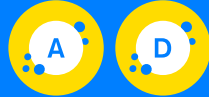


Bhawani Silicate



Background and motivation

Bhawani Silicate, based in Jaipur, Rajasthan, was established in 1991 as a Partnership Business Venture. According to staff, the company is among the most trusted manufacturers and suppliers of a high-quality range of edible oils in its region – in part due to its ISO 22000: 2005 certification, awarded for its food safety management system (HACCP).

The company is medium in size, with an estimated 26-50 employees. Their core products include a range of mustard oils, such as the brand Kachi Ghani. They produce oils both under their own brand, and for other major companies. This entails a process of production, packaging, branding (dependent on the client), and distribution of products. The company's headquarters, including its manufacturing plant, packaging, warehousing, marketing, sales, and quality control divisions, are walking distance apart and equipped with machines and tools to enable production in bulk. This well-connected set up helps ensure smooth operation.

Bhawani Silicate currently fortifies its mustard oils with vitamins A and D, with the intent to help reduce micronutrient deficiencies in priority populations or groups at risk of malnutrition in India. Fortified edible oil is sold under the brand names Amrit Oil (mustard oil), Bhawani Pure Mustard Oil (pure mustard oil), and Agmark Kachi Ghani Mustard Oil (natural mustard oil). Products are distributed through multiple channels and online retailers.

Current fortification practice

To ensure quality, Bhawani Silicate buys its mustard seeds from audited suppliers through Traders Rajasthan. Mustard seeds are then ground and mixed with water, and the oil is extracted by a process called distillation. Once ready, the oil is separated into batches, and a small amount of premix containing vitamin A and D is added (see box A for further information on the steps involved in fortifying edible oil). The company procures its vitamin A and D premix from both within and outside the state of Rajasthan. Local and international suppliers include [Pristine Organics](#), Rajan, Nakvan, Hexagon Nutrition and Sustain. The price of premix is not deemed to be a deterrent for Bhawani Silicate when selecting a supplier, as the company estimates that premix normally costs around INR 1 or 2. For every bottle of edible oil sold at INR 222, this represents around 1% of the total cost.

To guarantee that the premix meets Food Safety and Standards Authority of India (FSSAI) standards and is of a high quality, the company seeks accreditation from its suppliers to ensure it has been tested and the producer is certified. Bhawani Silicate has also employed a Quality Control Manager, who has implemented various internal quality control processes – including a template to track premixes used in oil at the batch level. This enables the company to trace which premix was used in each fortified product. This is not provided in the standard operating procedure (SOP) guidelines from FSSAI but could be replicated by other companies. Steps such as this help to monitor the quality of the fortified edible oil, and to assess whether errors occurred when premix was added to the oil during the production stage or whether the quality of the premix was

not up to standard. The company explained that this goes beyond the standard operating procedures encouraged by the FSSAI to ensure high-quality fortified oil reaches the market.

All product development stages, from procurement and manufacturing to packaging and dispatch, are conducted under strict quality monitoring and control mechanisms.

Challenges

Four challenges the company shared concerning edible oil fortification:

- **Access to high-quality premixes and labs for testing:**
Difficulties in accessing quality premixes (discovered this previously through self-testing the level of micronutrients in premix which produced inconsistent results) and sourcing trustworthy labs to conduct quality checks. It was shared that government-endorsed labs are available, however some inconsistencies with lab results were found. It was suggested that quality certifications may at times be purchased.
- **Strict fortification regulations and standards:**
Companies are disincentivized to fortify products due to the risks and penalties associated with failing to meet the requirements set out by FSSAI – even though fortification is voluntary. Often the quality of the product is the responsibility of the manufacturer rather than the premix provider. Penalties can even see manufacturing plants or facilities closed. To ensure their end products meet FSSAI standards, Bhawani Silicate has developed its own testing facilities.

- **Availability of capacity building for staff:**
Bhawani Silicate's Quality Control Manager attends all available training courses and seminars to remain up to date on food fortification practices and regulations. This includes a workshop provided by Mother Dairy, a large food and beverage company supplying milk in India. However, staff mentioned that oil associations in India have limited resources to fund capacity building or provide training for staff at companies fortifying edible oil. This makes keeping up to date with regulations changes in and SOPs challenging.
- **Lack of awareness and knowledge:**
Many of the company's competitors fortify their products without understanding the benefits of doing so. This lack of knowledge is a barrier to the production of quality fortified oil, which, in turn, may obstruct the path to reducing micronutrient deficiencies in India.

Going forward

Bhawani Silicate considers that fortification efforts by Indian manufacturers need to be sustained, and that capacity building could be an effective way of achieving this. The company strongly believes that access to structured knowledge and expertise are key to improving LSFF practices in the oil value chain, and to ensure products are fortified to standard and that consumers are provided with adequate levels of micronutrients.

The company expressed that an accountability approach, such as ATNI's Indexes, could help provide recognition and exposure for medium-sized edible oil producers following SOPs and FSSAI's fortification standards. This, in turn, could also influence

consumers to make informed decisions when buying fortified oil.

