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**REPORT ON COMMERCIALLY AVAILABLE MINERAL RICH FOODS IN
DIFFERENT SUPERMARKET OUTLET IN NORTHERN REGION OF
MANGALORE CITY**

AIM:

To conduct an on-field survey regarding commercially available mineral-rich food products in different supermarket outlets in Northern region of Mangalore city.

OBJECTIVE:

- To gain knowledge on various mineral-rich foods available in the market.
- To study the nutritive composition of mineral-rich foods.
- To know the market trend regarding mineral-rich products.

OUTCOME:

The survey gave a broad spectrum of knowledge on the different varieties of commercially available mineral-rich products with respect to their composition, cost, ingredients, and labeling.

REPORT:

An on-field survey was conducted by the students of 1st MSc FSN on 19th May 2023 at different supermarket outlets located in the Northern region of Mangalore city. The supermarkets that were surveyed were *Spar Hypermarket at Pandeshwar, Misbah Supermarket at Falnir & Martin's Supermarket at Kankanady*. The food products displayed in various counters were studied by going through the nutritional labeling as well as the nutritional claims of the product.

In *Spar Hypermarket at Pandeshwar*, it was observed that different food groups with their minimum packaging were rich in minerals. From the cereals "*Bemisal Shahi Pakwan*" premium rice claimed that it contains potassium (105mg), magnesium (21%), and phosphorus (17%) in their product. Wheat flour from the brand '*Naga*' showed 0.74mg of iron and 120.12mg of potassium content. Several breakfast

cereals also had some amount of mineral content such as **Museli** from the brand **Kellogg's** had 10mg of calcium and 0.5mg of iron. The **Rooted Co's muesli** contained 70.8mg of calcium, 3.2mg of iron, 348.4mg of potassium, 43mg of manganese, and 113.1mg of magnesium. Packages of oats from the brand '**Yoga bar**' claimed to contain 5mg of iron, 177mg of magnesium, 16.8mg of sodium it also contains other minerals like copper (0.6mg) , and phosphorus (523mg). Milk and milk products contained 24.8% of calcium and 5% of sodium. **Vegan milk** also had some amount of minerals present in it. **Soya milk by Sofit** has 0.19mg of zinc, 120mg of calcium, 107.1mg of sodium. Another vegan milk from the brand **Epigamia** (almond milk) has 112.5mg of calcium, and 10.3mg of sodium. Fruit juices had some amount of calcium and iron. '**Rasna's- Orange Power Squash** ' contains several minerals like calcium (40mg), phosphorus (20mg). It also contains minimal amount of zinc, selenium and copper. Another fruit juice from the brand '**Rasna**'-International Lemon claimed to contain 22.5mcg of iodine, 7.5mcg of selenium, 50mg of chloride on their labelling. Nuts had 11% of calcium and 17%/ of iron. Carbonated beverages such as **Pepsi** and **coke** contains 3mg of sodium. Miscellaneous products also had some amount of mineral content. **Jackfruit flour** has 16.8mg of sodium. Some of the ready to eat packed foods were some minerals. **Sundrop's Snack Corn Puffs** was enriched with iron (5.1mg) of iron and 3.6mg of zinc. Ready to cook **chapatti** has 10mg of calcium, 1.5mg of iron. **Instant soup** from **Knorr** had, 63mg of calcium and 1.5mg of iron.

The products of **Misbah Supermarket at Falnir** were analysed and it was seen that variety of foods were enriched with minerals. . In the cereals group **Organic India Quinoa** claimed that it contains iron (7mg),Sodium 6 mg and calcium 80 mg in the product. Rice flour from the brand **Asal** had 7.5 mg sodium and 3.73 MG calcium content. several breakfast cereals also had minerals present in them. The muesli from the brand **Kellogg's** had 14 mg of iron present in it.The broken wheat, atta & rice from the brand **Double Horse** had 20 mg of calcium and 1 milligram of iron. Packaged oats from the brand **yoga bar** claimed to contain 5 mg of iron and 177 mg of magnesium, 16.8 mg of sodium And 0.6 mg of copper.From the pulses group toor Dal from the brand **Tata sampann** contains 14.4 mg of sodium but no other mineral was present. As for the skim milk from **Good Life** contained 127 mg of iron. Cheese slices from the brand **Milky mist** contained 15.2 mg of sodium 532 mg of calcium and 219 mg of

phosphorus. Greek yogurt from the same brand contained 67 mg of sodium and 180 mg of calcium present in it. Tofu from the brand **Briyas** contains 50 mg of sodium and 220 mg of calcium in it. As for franchises makes fruit juice for real content 20 mg of sodium, 2 mg of potassium, 6 mg of calcium and 0.1 mg of iron. **Chocolate flavored horlicks** contained 741 mg of calcium, 180 mg of chloride, 0.65 mg of 139 mcg of magnesium and 190 mg of phosphorus present in it.

The products available in **Martin's Supermarket at Kankanady** had many mineral rich foods like Biscuits like **Britannica Vita MarieGold** contained minerals such as selenium (18 mcg) and zinc (7.6 mcg) per 100g. **Kellogg's Cornflakes** 'with real strawberry puree' contained 7 mg of iron and 470 mg of sodium per 100g and **Kellogg's Muesli (whole grain)** had 14 mg of iron and 300 mg (6%) of sodium. '**Aashirvaad**' Atta with Multigrains was high in fibre and contained 4.3 mg of iron and 4.6 mg of sodium per 100g. Roasted Ragi Powder from "**Double Horse**" contains 430 mg of calcium and 1mg of iron per 50g. **Nutraawell Premium Pasta** contains 2mg of calcium, 1.65 mg of zinc and 2.4 mg of iron per 100g. **Bambino Nutraawell Vemicelli** (Popular) was fortified with Immunity boosting minerals like zinc (1.65 mg), iron (2.4 mg) and calcium (3.4mg). The common snacks like **Rice Kodubale**, **Till Chikki** and **Kabuli Chana** of the brand **Aravind** special contained 2.4 mg of iron and 85 mg of calcium. **Organic India – Quinoa** contained 7mg of iron, 80mg of calcium and 6mg of sodium per 100g. **Mahaveer Prasad's Super Savi Peanut Crush Chikkies** contains 2.4 mg of iron and 85 mg of calcium. **Ary Turmeric Powder** contained 54 mg of iron and 130mg of calcium. **Nourish your Flax Seeds** is a product rich in calcium (8%), magnesium, phosphorus. **Lion Muscat Dates** contains 21mg of sodium, 477 mg of potassium, 53.1mg of calcium and 3.78 mg of iron.

Nandini Paneer contained 500mg of calcium and 20g of sodium. **Milk Mist Shredded Mozzarella** Cheese contains 600 mg of sodium and 312 mg of calcium. **Epigamia almond** milk contains 112.5 mg of calcium and 10.3 mg of sodium. **Milky Mist Lactose Free Milk (UHT Sterilised)** contains 100mg of calcium and 47mg of sodium. **Sofit Soya Drink** contains 36.5 mg of sodium, 0.4 mg of zinc and 75.6 mg of magnesium respectively. **Hershey's Milk Shake** – Cashew Butterscotch ice cream flavour is fortified with zinc (3.15mg) and contains calcium (324 mg), phosphorus (85 mg) and sodium (103 mg). **Metro 'Banana Chips' – chilli flavoured** contains 17mg of calcium, 1.7mg of iron per 100g.

Indrakshi ‘Organic Jaggery Powder’ contained 190mg of calcium, 90mg of magnesium and 2.5 mg of iron. **Real Juice – Mosambi** (sweet lime) contains 15 mg of sodium, 120mg of potassium, 3mg of calcium, 6mg of magnesium, and 2mg of phosphorus. **Mogu Mogu – Lychee Juice Drink with Nata-De-Coco** contains 39 mg of calcium and 121 mg of phosphorus per 100g.

CONCLUSION:

From this survey, we can understand that the commonly enriched foods are very available in very good numbers and various types of food products are enriched with it. It also shows the trend of these foods being fast sellers & therefore there was considerable amount of mineral enriched foods being in the market. Along with this we can also observe that number of mineral rich foods in a appreciable amount in the market and it is not restricted to only a few food groups. Another examined factor is that not only few elements like calcium, iron, sodium, and potassium enriched foods are abundantly available in market but also minerals like iodine, magnesium was seen. Hence, presence of different mineral-enriched food groups in the market and in form of different products will help in mineral intake of various age groups. However other micro mineral-rich foods have to be launched into the market.

Mineral Enriched foods



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