Fortified edible oil and ghee: Reducing vitamin A and D deficiencies

Edible oil and ghee is a basic food ingredient in Pakistan and an important part of our daily diet. Edible oil and ghee millers have an important social responsibility to provide fortified and high quality edible oil and ghee to the public and, in doing so, help reduce the disease burden, which result from the risks associated with vitamin deficiencies – especially in women, children and adolescent girls. Beyond this responsibility, edible oil and ghee millers have a mandate to meet the edible oil and ghee fortification standards of government regulatory authorities.

A nutrition crisis

Two to three percent of Pakistan's Gross Domestic Product (GDP) growth is lost annually due to malnutrition. To help address this urgent issue, Pakistan has joined 20 other countries in making the fortification of edible oil and ghee mandatory.

Pakistan faces a nutrition crisis that, if not addressed, has severe implications for maternal and child health. The 2018 National Nutrition Survey (NNS) states that 80% of women of reproductive age in Pakistan are vitamin D deficient 27.3 % are deficient in vitamin A. The problem repeats itself in children with 51.5% of under-5 suffering from vitamin A deficiency and 63% of vitamin D deficiency.¹

Why fortify?

Fortification is adding vitamins and minerals to foods to help prevent nutritional deficiencies. These nutrients help prevent diseases, strengthen immune systems, and improve productivity and cognitive development.²

The role of edible oil and ghee millers

Edible oil and ghee are widely consumed and therefore the potential to reach many of those who are micronutrient deficient is high. Milling industries play an important role in providing adequately fortified edible oil and ghee to the population. Millers will need to ensure they meet the standards set out by the government regulatory authorities about the type and quantity of vitamins to be added to the edible oil and ghee:

√ Vitamin A: 33000-45000 IU/Kg

√ Vitamin D: 3000-4500 IU/Kg

The industry will benefit from zero-rated customs duties and taxes

In 2016, the Federal Board of Revenue exempted customs duties and taxes of micronutrient premixes and its sales. This is an opportunity for the edible oil and ghee industry to contribute to the reduction of micronutrient deficiencies in the Pakistani population and to capitalise on the growing markets for fortified edible oil and ghee.

Food fortification is highly costeffective

A 2017 economic analysis indicates that fortification is a highly cost-effective intervention.³ In Pakistan, the cost is minimal:⁴

Fortification of edible oil and ghee with vitamins A and D costs 30 paisa per kg

Total annual cost per person, according to per capita consumption of 13 kgs oil, is RS. 4.28 rupees



FFP support to the industry

FFP is supporting the industry to transition to fortified food products in several ways:

- Training edible oil and ghee millers in fortification processes and internal quality assurance and quality control processes.
- Establishing internal testing within edible oil and ghee mills, close to the point of production, for analysing the nutrient value of vitamin A
- Establishing cluster laboratories with key testing equipment to provide tests to a larger group of 5-6
- Facilitating the purchase of vitamins A and D premix (halal certified) to be added in edible oil and ghee for
- Helping to obtain zero-rated customs duties and taxes on import of vitamins A and D premix from the Federal Government.
- Testing and scaling up a marketing and communication campaign to promote the health benefits of vitamins A and D in fortified edible oil and ghee with the aim of increasing sales.

What needs to happen now?



We need edible oil and ghee millers to:

- ✓ Participate in the Food Fortification Programme and sign the memorandum of understanding.
- ✓ Ensure fortified edible oil and ghee meets the standards of government regulatory authorities.
- ✓ Continue to purchase vitamin A premix and improving in-mill quality assurance measures.
- ✓ Use labelling, such as the fortified edible oil and ghee logo, and advertise information about the health benefits of vitamins A and D added to edible oil and ghee.

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1 National Nutrition Survey, 2018

2 Why fortify? http://www.ffinetwork.org/why_fortify/index.html

3 http://jn.nutrition.org/content/136/4/1068.long; Journal of Nutrition, 2017 by the American Society for Nutrition

4 Study on the fortification costing of wheat flour (atta) and edible oil/ghee in Pakistan, May 2007. USAID/GAIN Pakistan Regional Food Fortification Project.

About Food Fortification Programme; the UK Government's Department for International Development (DFID) is funding a five-year programme to overcome micronutrient malnutrition in Pakistan, through sustainable improvement in food fortification. FFP will achieve this through sustainably improving access and consumption of wheat flour fortified with iron, folic acid, zinc, vitamin B12 and edible oil/ghee fortified with vitamins A and D.

For more information about Food Fortification Programme and its work on food fortification in Pakistan, please visit www.ffp-pakistan.org, follow FFP on Facebook @FFPpakistan and twitter @FFP_PK If you have queries, please write to us at info@ffp-pakistan.org and Laila.Rubab@ffp-pakistan.org







