

SCOPE OF WORK:

The major scope of work covers the following activities:-

- a. Loading of wheat at FCI Godown and Unloading of wheat at mill
- b. Cleaning and grinding of wheat
- c. *Fortification of whole wheat atta with the specified micronutrients (vitamins and minerals)*
- d. Testing the quality of fortified whole wheat atta, as per given specifications.
- e. Appropriate storage of wheat grains, micronutrient premix, packing material and fortified whole wheat atta at the mill,
- f. Appropriate packing of fortified whole wheat atta in bags made with material as per the packaging guidelines
- g. Loading of fortified whole wheat atta at mill.
- h. Delivery & supply of fortified whole wheat atta at specified locations in the state as mentioned in the supply order.

NOTE: Henceforth, the abbreviation: FWWA, denoting “Fortified whole wheat atta” would be used throughout the tender document to refer to the product: Whole Wheat Atta, which is appropriately fortified with micronutrients as per the specifications

Eligibility for bidding –

1. The quality of cleaning, milling, fortification packing etc. should be such that the shelf life of **FWWA** supplied by the bidder is at least 45 days. Miller is required to guarantee **45 days shelf life** stability and it shall be submitted in the form of a self attested certificate for **FWWA** produced by the miller.

Price Basis –

The price of the **FWWA** shall be quoted as per the “Procedure for supply of the product and terms & conditions described in the Tender Documents”. The price to be quoted in Rs. per MT of FWWA to be supplied.

The price shall be inclusive of all applicable relevant expenses like unloading of wheat at mill, cleaning & grinding charge of wheat, cost of premix and process of fortification using vitamins and minerals as per technical specifications, packing material as per specification, packing charges, storage at mill, loading of **FWWA** at mill inclusive of all Govt. duties and taxes as applicable, public liability insurance and all other incidental expenses for delivering **FWWA** at locations specified by the department of Food and Civil Supplies from time to time.

Technical Bid Documents –

- a. Self-certification of 45 days **shelf life stability of FWWA**, and other documentation identifying formulation of all ingredients (premix etc.) used in the milling and processing of **FWWA**.
- b. Company Profile or details of **premix manufacturer**, including valid address, phone, fax and e-mail, its certification and quality reports from ISO/ Govt. recognized laboratory for premix which will be used for the processing of **FWWA**.
It may be noted that micronutrient premix for fortification of whole wheat atta is to be procured ONLY from those premix suppliers who are empanelled with WFP/ GAIN/ MI/ UNICEF/ WHO and whose name are mention on the Food Fortification Resource Centre Website.
- c. In house **Quality Control** facilities with list of equipments, man-power and associated laboratory detail, contract etc.
- d. The **latest consent letter** received from the Premix manufacturers for the supply of premix, minimum for the contract period to the bidder.

10. QUALITY CONTROL AND INSPECTION

The miller must, at all times, ensure that the **FWWA** being supplied shall always conform to the quality standard approved or prescribed by the Department of Food and Supplies. Strict compliance with these quality standards is mandatory and deviations shall not be permitted under any circumstance.

In view of the very short shelf life of **FWWA** and urgency to supply required quantity at retail outlets, the following method of quality assurance will be followed:

A preliminary online quality test for moisture, sieve test, and presence of premix (through spot test for micronutrients) will be carried out in the Govt. approved accredited laboratory. Subsequently, authorized agency will also take representative sample from each batch of approximately 50 MT and will carry out preliminary quality test for moisture, sieve test and presence of vitamins and minerals, any deviation from specifications found during the preliminary quality test shall lead to an automatic rejection of the **FWWA** at the time of acceptance. The samples so tested shall be kept for safe 90 days during which the Supply Deptt. may get the samples tested in any reputed *NABL Accredited Reference* laboratory for cross checking the results..

The Department of Food and Supplies also reserves the right to collect the random samples of **FWWA** from miller's premises/Godowns/ Centres at any time and get the same tested at the laboratory authorized by the Department of Food and Supplies, at

own cost. If on analysis of laboratory report any deficiency found in the product, it will attract penalty provisions as prescribed in this tender document.

The Corporation reserves right to introduce procedures and methods, which would ensure timely supply of quality material to the designated outlets.

The Corporation's right to inspect, test and where necessary, reject the **FWWA** after the **FWWA** arrival at the Corporation's godowns shall in no way be limited or waived by reason of the **FWWA** having previously been inspected, tested and passed by the Corporation or its representative prior to the **FWWA** shipment from their manufacturing unit.

SPECIAL CONDITIONS OF CONTRACT (SCC)

1. PROCEDURE FOR SUPPLY OF THE PRODUCT

- a) The bidder/miller should buy required type and quantity of Vitamins & Minerals Premix as specified in this tender from the reputed manufacturer having following criteria:
 - i. Vitamins & Minerals Premix manufacturer should have minimum three years manufacturing experience,
 - ii. Manufacturer should have ISO 9001-2000 certification for manufacturing,
 - iii. Manufacturer should have valid Food and Drug License Number,
 - iv. Manufacturer should have HACCP certification
 - v. Manufacturers manufacturing facilities and process should be audited and approved by any of the authorities like UNICEF/ WFP/ WHO/ MI/ GAIN or be listed on the FFRC website.
 - vi. Manufacturer's detail, as mentioned above and Company profile should be submitted so that after proper evaluation of the company it can be registered with department.
 - vii. The bidder should submit the consent letters received from the Vitamins & Minerals Pre-mix manufacturers for the supply of pre-mix, minimum for the contract period to the bidder.

- b) The bidder/miller is required to earmark designate area and godowns for the storage of wheat, etc. and declare the same with tender documents. Bidder/miller will not be permitted to carry out grinding, processing, fortification, packing and any other work related to the market or schemes other than Govt. Schemes in this area during the period of Govt. work. If it is found that these instructions are not followed by the bidder/miller, the Department of Food and Supplies may take necessary actions including termination of the contract.

- c) The bidder shall be required to prepare the product and maintain the final nutritive value of the product based on the tender specification for formulation and composition of the Product such as Vitamins, Minerals, as specified in **Appendix-A** of the tender document.

The Product will be packaged and packed as per specifications given at **Appendix-A** and as per Packaging Order Act as well as Weights and Measure Act/Rules.

For better mixing of premix while preparing **FWWA**, miller is expected to use microdoser and then process the **FWWA** through Entolator to ensure good shelf-life.

4. PENALTY: (Introduce clauses of penalty if the following is not met)

a). If it is found that bidder/miller has not carried out **grinding** as per the specifications for the batch.

c) If it is found that there is a **short fall in the use of Premix** in the batch, compared to the prescribed limit of usage mentioned in the tender document.....The short fall will be assessed from the QC report of the premix parameters for the batch.

d) If it is found that bidder/miller has not supplied **FWWA** in bags with **specified weight**, in the batch, then in respect of the shortfall in quantity in a batch.....
The short fall will be assessed from the average weight in randomly selected at least 15 sound bags from the batch.

e) If it is found that bidder/miller has **diverted the wheat** provided for preparation of **FWWA**, then in addition to the **legal actions** under the Essential Commodity Act or any other law in force,

f) If it is found that bidder/miller has **diverted the FWWA**, then in addition to the **legal actions** under the Essential Commodity Act or any other law in force,

h) If it is found that **FWWA** supplied in a batch at the field level i.e. at Godowns/ Centres has moisture content more than 14% then the stock will be rejected and the amount equivalent will be deducted

For any small technical errors/mistakes by miller while implementation of the procedure in supply of **FWWA** like misprinting, matter not readable, mistake in logo or any other such mistakes not covered under any other penalty charges

APPENDIX – A: TECHNICAL SPECIFICATIONS

TECHNICAL SPECIFICATION OF FORTIFIED WHOLE WHEAT ATTA:

1. Product Specification and Processing instructions:

- 1) **FWWA** should be made by processing whole wheat atta, which is obtained from grinding of whole wheat, and it is free from dirt, filth, filling and added colouring matter. It should conform to the standards for whole wheat flour, specified by FSSAI –

Particulars	Range
(a) Moisture -	Not more than 14.0 percent (when determined by heating at 130-133°C for 2 hours).
(b) Total ash	Not more than 2.0 per cent (on dry weight basis)
(c) Ash insoluble in dilute HCL	Not more than 0.15 per cent (on dry weight basis)
(d) Crude fibre	Not more than 2.5 per cent (on dry weight basis)
(d) Gluten (on dry weight basis)	Not less than 6.0 per cent
(e) Alcoholic acidity (with 90 per cent alcohol) expressed as H ₂ SO ₄ (on dry weight basis)	Not more than 0.18 per cent at the time of production

- 2) For producing **FWWA**, whole wheat flour, produced as above should be fortified with Iron, Folic Acid and vitamin B₁₂, as per the fortification standards specified by FSSAI and listed as below:

S. No	Micronutrients to be added	Source	Level of Fortification, per kg of FWWA
	Iron	Sodium Iron (III) Ethylene diamine tetra Acetate, Trihydrate (NaFeEDTA)	20 mg
	Folic Acid	Folic Acid	1300 mcg
	Vitamin B ₁₂	Cyanocobalamine, Hydroxycobalamine	10 mcg

- 3) Vitamins and minerals used in the manufacture and supply of FWWA, should be from 100% vegetarian source. The minimum shelf life of the finished product

(FWWA) should be 45 days from the date of manufacture. The FWWA must be manufactured in accordance with relevant Good Manufacturing Practices (GMP) Standards

- 4) Certificate of Analysis: A copy of the Certificate of Analysis from the Govt. Approved and Authorised Laboratory, accredited by NABL, should be provided, for each batch of 50 MT (approx. 5000 bags considering 10 Kg weight per bag) of the FWWA.
- 5) As per the provisions of FSSAI (regulation 2011), each bag of FWWA should have the list and quantities of added micronutrients on the label.

2. Manufacturing Process:

- a) The product FWWA should be manufactured as specified below:
 - i. Cleaning of Wheat by Separator, de-stoner, scourer, aspiration and magnetic system etc.
 - ii. Milling Process: Grinding of clean Wheat and milled into fine flour/course flour (as per requirement) by using modern technology
 - iii. Micronutrient fortification: The milled whole wheat flour is homogeneously mixed with the vitamin/mineral premix (as per the given specifications) using microdoser and then processed through the entolator.
 - iv. The product should be fortified using a premix of micronutrients, so that the level of fortification per 1 Kg of FWWA is in line with the FSSAI specifications, as below:

S. No.	Nutrient	Level of fortification per Kg
1.	Iron - Ferrous citrate or Ferrous lactate or Ferrous sulphate or Ferric pyrophosphate or electrolytic iron or Ferrous fumarate or Ferrous BisGlycinate;	28 mg- 42.5 mg *
	or Sodium Iron (III) Ethylene diamine tetra Acetate Trihydrate (Sodium feredetate-Na Fe EDTA);	14 mg- 21.25 mg
2.	Folic Acid	75 µg- 125 µg
3.	Vitamin B12 - Cyanocobalamine or Hydroxycobalamine;	0.75 µg- 1.25 µg

- v. Vitamin/ Mineral Premix required to be of standard quality as stated above at point iv and should come from manufacturers fulfilling the qualifying criteria as mentioned in this tender document.

- vi. Bidder is required to submit details of the premix manufacturers and quality reports of premix from ISO/ NABL Certified/ Govt./ Govt. recognized/ Department of Food and Civil Supplies recognized laboratory. Department of Food and Civil Supplies may verify the details and all claims submitted with reference to the premix which will be used for fortification of wheat flour, and its results in the **FWWA** after processing the whole wheat flour, with the proposed premix. For the purpose the Department may ask samples of premix to be used for fortification at the time of award of the contract. If results from such tests are not as per the required standards and specifications, then the bidder may not be considered for award of the contract.

3. The product shall meet the following requirements:

- a. **TASTE:** It shall have a natural smell and palatable taste.
- b. **SHELF LIFE:** Minimum shelf life of 45 days under normal conditions from the date of manufacture till consumption in packing by the beneficiaries.
 - i. **FLOUR CHARACTERISTICS:** As per the FSSAI standards.

ii. Quality Assurance:

- 1. The bidders, whose offers may be accepted, shall supply **FWWA** which shall conform to the quality, as prescribed in the technical specifications, given in this tender document.
- 2. The bidders/ millers should provide a certificate of quality for micronutrient mixes when needed, which obtained from the manufacturers, stored in a systematic and timely manner, used in wheat flour as per the technical specifications and guidelines prescribed
- 3. Quality of every batch of approximately 50 MT quantity of specified bag size of **FWWA** production, for delivery at the Godowns/ Centres, has to be substantiated by the laboratory test report obtained from the authorised laboratory after testing of the representative sample drawn by representative of Department in the presence of the representative of miller, from each batch of **FWWA**.
- 4. Once batch-wise result of the laboratory test confirms that the **FWWA** quality offered in a batch by the miller is as per the specifications given in this tender document, it will be accepted. Any deviation from specifications shall lead to an automatic rejection / penalty of the **FWWA** at the time of acceptance, as per the terms specified in the tender document.
- 5. The bidders/ millers should keep all records made available to inspections or audits assigned by department / other support agencies. A set of records required to be maintained by millers fortifying wheat flour are as follows.
 - (a) Grain received from Food Corporation of India or State Godowns
 - (b) Wheat Incoming - Outgoing Register for Fortified Flour

- (c) Premix Incoming - Usage Register
- (d) Fortified Flour Dispatch Register
- (e) Fortified Flour Incoming - Outgoing Register
- (f) Quantity of fortified Flour returned from Godown to Mill - Incoming Outgoing register
- (g) Quality Testing of Fortified Flour eg,—moisture, qualitative, semi- quantitative, and sieve analysis tests.

6. Premix procurement and storage facility

It is responsibility of millers to ensure that premix has sufficient shelf life used for whole wheat flour, which normally varying from one year to two years as ensured by the premix manufacturers. Premix order quantity will be determined on the basis of the monthly production requirements by the mills, time lag for getting supplies, minimum stock levels to be maintained and minimum order quantity.

Premix Storage

The carton containing premixes should be air and water tight. It should be protected from direct light exposure and kept in cool dark place to save it from degradation. Original containers at the mills should be kept away from light and heat and kept in dry place.

5. **PACKING:**

- 1) **FWWA** should be packed in **laminated HDPE/PP woven sack bag, which would make further distribution to the project level easy and simple. All packing shall be food grade material appropriate for the packing of FWWA.**
- 2) All packaging shall be food grade material appropriate for the packing of **FWWA.**
- 3) All packaging must be properly sealed and shall be machine-stitched.
- 4) Millers should buy the packing material/ packing bags (inner as well as outer) from reputed manufacturers only.
- 5) The required packing and labeling standards should meet the Standard Packaging Act.
- 6) At the time of taking delivery of the **FWWA**, weight of the packing material will not be taken into account. Only the net weight of **FWWA** will be considered.
- 7) The bag of **FWWA** shall bear label as prescribed by FSSAI giving technical specifications (batch no., packing date, shelf life of **FWWA**, nutritive value of the product, micronutrients added as fortificants, etc.). The date of

packing and the date of expiry should be clearly written and marked in Hindi with red Ink.

- 8) **LABELLING:** The exact detail of labeling will be given by Department at the time of awarding the contract. However, the label shall contain the following information in English/ Hindi.

PACKING:

- a) The composition of the content with levels.
- b) Distributor's/Miller's name and address
- c) Manufacturer's name and address
- d) Date of Manufacture/ Packing Date
- e) Batch No.
- f) Warnings, if applicable
- g) Storage instructions
- h) Net Weight
- i) Best before 45 days
- j) The wording "Fortified whole wheat atta with Iron, Folic Acid and Vitamin B -12" followed by + F Fortification logo as specified in the Schedule II of the Food Fortification regulations issued by FSSAI, on the label.
- k) Any other requirement under FSSAI Rules and applicable packaging act.
- l) Any other particulars as required under the existing rules/orders or as may be communicated subsequently.
- m) Label claim for fortification should read as:

100 g fortified wheat flour contains:

S. No.	Nutrient	Level of Micronutrient in 100 gms Atta
1.	Iron - Ferrous citrate or Ferrous lactate or Ferrous sulphate or Ferric pyrophosphate or electrolytic iron or Ferrous fumarate or Ferrous BisGlycinate;	2.8 mg- 4.25 mg *
	or Sodium Iron (III) Ethylene diamine tetra Acetate Trihydrate (Sodium feredetate-Na Fe EDTA);	1.4 mg- 2.125 mg
2.	Folic Acid	7.5 µg- 12.5 µg
3.	Vitamin B12 - Cyanocobalamine or Hydroxycobalamine;	0.075 µg- 0.125 µg

The miller must have the consent of the Corporation before finalizing the design of the packing material. Failure to include any of the above information may result in rejection of the consignment and non-payment of the invoices against supplies. Miller will supply samples of packing and all labels for approval prior to first dispatch.

7. Sampling Method:

SAMPLING PROCEDURE TO GET REPRESENTATIVE SAMPLE OF FORTIFIED WHOLE WHEAT ATTA FROM A BATCH

The fundamental procedure mentioned in **IS 14818: 2000** shall be followed to get the representative sample from the **batch/ lot of approximately 50 MT quantity in bags of specified bag size each**, offering **FWWA** for supply under the contract. Stock shall be divided into group of bags to get the sample bags. The sample shall be taken from different parts of bag (for example top, middle and bottom layers) by means of a sack / bag sampler (parkhi) from the number of bags selected. Thus, approximately 2.5Kg to 3.0Kg quantity of **FWWA** should be collected to get the representative sample of **FWWA** having approximate weight of 500 Grams by “sample divider” or “coning and quartering method” for quality checking and keeping the sample for reference in the presence of representative of the miller.

8. Testing Method:

All such tests necessary to determine the conformity of the product with prescribed standard specifications will be conducted. The quality of Fortified Whole Wheat Flour of the representative samples drawn from the offered stock for supply shall be tested as per the **methods shown at Annexure-A**.

ANNEXURE – A
Quality Specifications for
Fortified Whole Wheat Flour

01. ATTA means the coarse product obtained by milling or grinding clean wheat free from rodent hair and excreta. It shall conform to the following standards:-

Particulars	Range	Method of Test
(a) Moisture -	Not more than 14.0 percent (when determined by heating at 130-133°C for 2 hours).	IS 1155:1968 or IS 4333 (Part 2): 2002
(b) Total ash	Not more than 2.0 per cent (on dry weight basis)	IS 1155:1968
(c) Ash insoluble in dilute HCL	Not more than 0.15 per cent (on dry weight basis)	IS 1155:1968
(d) Crude fibre	Not more than 2.5 per cent (on dry weight basis)	IS 1155:1968
(d) Gluten (on dry weight basis)	Not less than 6.0 per cent	IS 1155:1968
(e) Alcoholic acidity (with 90 per cent alcohol) expressed as H ₂ SO ₄ (on dry weight basis)	Not more than 0.18 per cent at the time of production	IS 1155:1968

02. FWWA - the atta to be prepared by the bidder/miller - means the product obtained by fortifying whole wheat atta, fortified with iron (20 ppm, using NaFeEDTA), folic acid (1.3 ppm) and vitamin B₁₂ (0.01 ppm). It shall be free from insect or fungus infestation, odour and rancid taste. It shall not contain added flavouring and colouring agents or any other extraneous matter and should conform to the FSSAI standards