

Draft of National Standard for low extraction flour fortification

UZBEKISTAN



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**Technical meeting of the Regional Expert Group on harmonization of
standards for food fortification in Central Asia, Afghanistan and Pakistan**

September 6, 2016, Almaty, Hotel Rixos

Draft of National Standard

The draft of State Standard of the Republic of Uzbekistan implements norms of regulation acts and documents on standardization applicable in the territory of the Republic.

- LRU-213 «On Technical Regulation» dd. April 23, 2009;
- LRU- 251 «On prevention of micronutrient deficiency among the population» dd. June 07, 2010;
- Resolution of the Cabinet of Ministers of the Republic of Uzbekistan «On measures for implementation of the Law of the Republic of Uzbekistan on prevention of micronutrient deficiency among the population» №260 dd. 23.11.2010;
- General Technical Regulation «On grain safety» dd. 31.03.2016;
- SANPiN №0283:2010 «Hygiene requirements to food safety» and others.

Draft of National Standard

- **Scope of the standard** applies to wheat baking flour fortified with vitamin-mineral mixture, produced from soft wheat or soft wheat with a portion of durum of no more than 20% and intended for production of bread, bakery products, pasta, pastry items, and to be sold through a retail chain.

Draft of National Standard. Review

№	Sections of the KAN standard	№	Sections of the National Standard	Objectives
1	Scope	1	Scope	
2	Normative references	2	Normative references	
3	Technical requirements	3	Technical requirements	
3.1		3.1	Classification	Brought in line with RD GSS RUz in connection with distribution of this standard's requirements to two grades of flour (the highest and first ones)
3.2	Characteristics	3.2	Requirements to the wheat flour fortified with VMM including the requirements to metal magnetic admixture in flour before fortification.	
3.3	Requirements to raw materials	3.3	Requirements to raw materials	
3.4	Packing	3.4	Packing	
3.5	Marking	3.5	Marking	
		4	Requirements to safety	Brought in line with RD GSS RUz. Safety requirement to be given in a separate section.

Draft of National Standard. Review

№	Sections of the KAN standard	№	Sections of the national standard	Objectives
4	Acceptance rules	5	Acceptance rules	
5	Monitoring procedures	6	Monitoring procedures	
6	Transportation and storage	7	Transportation and storage	
7	Manufacturer's guarantees	8	Manufacturer's guarantees	
	Annex A. Food and energy value of fortified flour		Annex A (mandatory). Food and energy value of micronutrients in 100 g of flour.	
	Annex B. Qualitative methods of iron determination in flour		Annex B (recommended for operational control in mills).	According to the Law of RUz "On metrology" (clause 8) and regulations of the State System for Ensuring Uniform Measurement "The procedures of measurements shall include the assessment of measurement deviations and ensure the proper accuracy in real measurement conditions. Measurements shall be performed in accordance with measurement methods having metrological certificates in prescribed manner".
	Annex C. Standard logo for fortified food approved in the prescribed manner		Annex C. Logo for fortified food products.	
	Annex D. References		References	

Comparison of National Standard draft with the proposed draft of standard template developed by KAN

Table 1. Requirements to wheat to be milled

Content of barley, rye and their germinated grains and wheat (cumulatively), including:				Brought in line with General Technical Regulation of the Republic of Uzbekistan “On grain safety”.
Germinated grains	5,0	-		
Cockle	3,0	-		
Harmful impurities:	0,1			
-		Harmful impurities:		
Ergot	0,05	Ergot and smut (cumulatively)-	0,15	
Acroptylon repens, Sophora alopecuroides, Thermopsis lanceolata (cumulatively)	0,1	Ergot Acroptylon repens, Sophora alopecuroides, Thermopsis lanceolata (cumulatively)	0,05	
Including Acroptylon repens and Coronilla (cumulatively) ?				
Coronilla	0,1	Coronilla	0,1	
Heliotropium dasycarpum	0,1	Heliotropium dasycarpum	0,1	
Trichodesma incanum	NA	Trichodesma incanum	NA.	
Smut (durty, blue-eyed mold) grains	10,0	Smut (durty, blue-eyed mold) grains	10,0	
Fusarium on grain	1,0	Fusarium on grain	1,0	
Note- The germinated grains to be determined according to results of grain analysis before decontaminating.		Note- The germinated grains to be determined according to results of grain analysis before decontaminating.		

Comparison of National Standard draft with the proposed draft of standard template developed by KAN

Table 1. Requirements to wheat to be milled

<i>Content of barley, rye and their germinated grains and wheat (cumulatively), including:</i>		<i>Content of barley, rye and their germinated grains and wheat (cumulatively), including:</i>		Requirements to grain directed to milling are established in view of decontamination of grain in grain cleaning room of the mill, that is over the I break passage. Norms specified in the standard template are shown for supplied grain and need to be clarified.
<i>Germinated grains</i>	5,0	<i>Germinated grains</i>	5,0	
<i>Cockle</i>	3,0	<i>Cockle</i>	3,0	
<i>Harmful impurities:</i>	0,1	<i>Harmful impurities,</i>	0,1	
<i>-</i>		<i>Including Acroptylon repens and Coronilla (cumulatively)</i>	0,05	
<i>Ergot</i>	0,05		0,04	
<i>Acroptylon repens, Sophora alopecuroides, Thermopsis lanceolata (cumulatively)</i>	0,1	<i>Note- The germinated grains to be determined according to results of grain analysis before decontaminating.</i>		
<i>Including Acroptylon repens and Coronilla (cumulatively) ?</i>				
<i>Coronilla</i>	0,1			
<i>Heliotropium dasycarpum</i>	0,1			
<i>Trichodesma incanum</i>	NA			
<i>Smut (durty, blue-eyed mold) grains</i>	10,0			
<i>Fusarium on grain</i>	1,0			
<i>Note- The germinated grains to be determined according to results of grain analysis before decontaminating.</i>				

Variant of micronutrient composition in premix for low extraction flour fortification

№	Nutrients	Micronutrient levels to be added in parts per million (ppm) to wheat flour
1	Iron (NaFeEDTA)	15,0
2	Zinc (zinc oxide)	30,0
3	Vitamin B ₉ (folic acid)	1,0
4	Vitamin B ₁₂ (cyanocobalamin)	0,004
5	Vitamin B ₁ (thiamin)	2,0
6	Vitamin B ₂ (riboflavin)	3,0
7	Vitamin B ₃ (niacin)	10,0

Requirements established in KAN standard to micronutrients content in finished products

Vitamins and micronutrients weight ratio, mg/kg:	Standard	Note
B ₁₂	0,002-0,006	Clarification needed for established limits of vitamins and minerals content.
B ₉ (including background)	0,7-1,9	
B ₁ (including background)	1,5-4,1	
B ₂ (including background)	2,0-5,2	
B ₃ (including background)	11,0-29,0	
Iron weight ratio (including background): NaFeEDTA	16,0-32,0	
Zinc weight ratio (including background)	26,0-50,0	

CONCLUSION:

- Draft of National Standard includes the same sections as the proposed standard template.
- In individual safety indices, regulation references for products and test methods are there some discrepancies connected with difference between current regulating documents and regulations in the field of standardization in the Republic of Uzbekistan and Kazakhstan.
- The proposed premix formula is in the process of development by the Ministry of Health of our Republic.
- The draft of proposed standard template is interconnected with recipe and process instruction for fortified flour production, which have not been submitted for consideration. Clarification and, if necessary, update is needed for established limits of micronutrients in finished products.

Procedure matters:

- To send the first version of the draft for review to organizations concerned, including consumers of these products; to collect feedback and execute the review summary.
- To finalize the draft on results of reconciliation of the first version of standard draft .
- To approve the final version of the standard.
- To perform examination of this regulation in “Uzstandard” agency.
- To develop the organizational and technical measures for implementation of the National Standard.