

GHANA COMMODITY EXCHANGE(GCX) SORGHUM CONTRACT

1. CONTRACT CLASSIFICATIONS AND DELIVERY CENTERS

White Sorghum	Kumasi (KU) Tamale (TA) Wa (WA)
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2. SORGHUM GRADING PARAMETERS

Sorghum Type	Delivery Location	Symbol	Grade
White	GCX certified warehouse	WS	1,2,3,4

2.1 General Requirements

All Sorghum delivered and stored in a GCX certified warehouse shall have a good natural color and shall be free from objectionable odor, have a maximum moisture content of 12.5%, and contain no live insects, toxic seeds or metal fragments. Grains must be practically free from Foreign matter and insect damage.

2.2 Definitions

Sorghum	The shelled grains of Sorghum Bicolor
Moisture Content	The moisture content, expressed on a wet weight bases, as determined by using a moisture meter with a repeatability of ± 0.3 as indicated by the supplier.
Screenings	All matter passing through a 2.0mm slotted sieve
Foreign matter	All organic and inorganic materials (leaves, animal droppings, dead insects, weeds, twigs, detached seed coats, other grains, earth, sand, stone etc) other than sorghum and broken kernels
Pest/Insect damaged grains	Kernels with obvious weevil bored holes or which have evidence of boring or tunneling, indicating the presence of insects, insect webbing or insect refuse, or degermed grains,

	chewed in one or more than one part of the kernel which exhibit evidence of an attack by vermin.
Rotten & Diseased	Grains made unsafe for human consumption due to organisms of decay such as fungi or bacterial; decomposition, or other causes that may be noticed without having to cut the grains to examine them.
Discoloured	Kernels materially discolored by excessive heat, including that caused by excessive respiration and dried damage kernels. Stain or mottling on the surface caused by weather, dirt. Kernels may appear darkened, wrinkled, blistered, puffed or swollen often with discolored damaged germs. The seed may be peeling or may peel off completely, giving kernels a checked appearance.
Immature/Shriveled	Sorghum kernels that are shrunk, mis-shaped, or are not fully matured or developed.
Trash	Chaff and other Sorghum trash retained above a 2.0mm slotted screen following the screening process.
Other grains	Grains, whole or broken, other than sorghum
Toxic seeds	<ul style="list-style-type: none"> • Sorghum must not include toxic seeds such as Crotalaria seeds, castor beans (<i>Ricinus communis</i>), Cookie burs (<i>Xanthium</i>) etc.
Objectionable Odor	Unpleasant smell that is caused by weathering, chemical contamination, mold infection, disease or damage caused by insects.
Good Natural Color	The natural appearance of the grain, which is pure and has not been affected by natural or man-made factors.
Admixture	Total of foreign materials, screenings and trash.

2.3 Classification

No	Class	Color
1	White Sorghum	≥ 98 % by weight white, cream or yellow colour kernel

2.4 Grading Parameters

GHANA COMMODITY EXCHANGE GRADING STANDARDS FOR SORGHUM

Parameter	Grade 1	Grade 2	Grade 3	Grade 4
Moisture Content	12.5%	12.5%	12.5%	12.5%
Thousand Kernel Weight	30g	28g	27g	26g
Split grain (Chipped and broken)	1.0%	2.0%	3.0%	4.0%
Rotten, Diseased and Discoloured	None	None	None	None
Immature/Shrivelled grain	1.0%	2.0%	3.0%	4.0%
Total Defective Grains	2.0%	4.0%	6.0%	8.0%
Screenings/Foreign Matter/Trash	0.6%	0.7%	0.8%	0.9%
Live Infestation	None	None	None	None
Unthreshed Sorghum	0.25%	0.5%	0.75%	0.75%

- An upward adjustment of 1.0% is made to the weight of the grain on deposit to make provision for moisture loss and losses during the handling and storage process.
- Sorghum shall be free from foreign odours.
- Sorghum shall be free from glass, dung or metal
- White Sorghum = min of 98% yellow, cream or golden kernels
- Total Defective Grains include the sum of chipped and broken and immature/shrivelled grains.
- The sampling and grading is done using a work sample of at least 200 gram and is based on the procedures below.

AFLATOXIN IS NOT A GRADING PARAMETER BUT NO GRADE 1, 2 or 3 will be accepted by the GCX for trading if the

- Total Aflatoxin level exceed 5ug/kg or 5ppb
- Aflatoxin B1 must not exceed 3ppb
- Fumonisin must not exceed 2ppm

Based on regular tests done by an independent laboratory appointed by the GCX.

Sorghum which does not meet the requirements of Table 2.4 shall not be accepted to be stored at GCX warehouses.

The GCX may not accept sorghum at all the warehouses based on operational factors such as lack of space, Aflatoxin levels harmful for human consumption, live insect infestation.

PACKAGING	
Packaging	Each grade of sorghum shall be packed in clean and sound 50 kg capacity polypropylene (PP) bags used no more than once prior to deposit. Delivery will be effective on Net Weight basis, which implies that weighing of sorghum will be done exclusive of bag basis and no additional payment will be given for the cost of bag.
SAMPLING PROCEDURES	
Sampling Procedures	<ul style="list-style-type: none"> • A representative sample shall be taken from the consignment. • The number of bags sampled per consignment will depend on the number of bags delivered <ul style="list-style-type: none"> a) <25 bags: Every bag shall be sampled b) ≥25 bags: 10 % of consignment (min 25 bags) must be sampled <p>3.The sample shall be ≥ 0.5 kg</p> <p>4.The sample shall be clearly marked.</p> <p>5.The samples shall be taken at different parts on the bags like at the bottom of the bag, in the middle of the bag and on the top of the bag. More than one sample can also be taken from the same bag.</p>
Weighing Procedure	The bags will be weighed by applying the following:

	<ul style="list-style-type: none"> • Calibrated scales shall be used. • The operating manual shall be followed. • The equipment shall be clean, empty and balanced (zero) before the process starts.
Grading Procedure	<p>The grading of the sorghum shall be done according to the grading standards in 2.4, based on the following:</p> <ol style="list-style-type: none"> 1. A working sample of at least 200grams will be obtained by dividing the grading sample in smaller samples using a Multi slot divider. 2. The moisture content will be measured by using a moisture meter with a repeatability of ± 0.3 as indicated by the supplier. 3. The broken kernels will be calculated by using a 3.175mm round whole metal sieve. The sieve will be pushed 20 times (away and return) on a hard smooth surface. 4. The other grading parameters will be tested by identifying the non-conformed kernels according to the definitions in 2.4 and calculating the percentage.
Disputes during intake	<p>The depositor may request the GCX Warehouse Manager to regrade and resample his sorghum. Where the depositor is dissatisfied with the grading results, the depositor may request for regrading and resampling in accordance with the GCX dispute resolution process lodged with the warehouse.</p>
Disputes during deliveries (out loading)	<ol style="list-style-type: none"> 1. The holder of the electronic warehouse receipt may be present when the sorghum is being graded and weighed. 2. Where the holder of the electronic warehouse receipt is not satisfied with the grading results and the quantity, the GCX Warehouse Manager may repeat the process of sampling and grading. Where the holder of the electronic warehouse receipt is dissatisfied with the results of the regarding and resampling the following shall be carried out: 3. Where quantity is disputed, the scale / weighbridge shall be tested by using the test weights. The quantity / weight shall be accepted as the final quantity where the test weights confirm the weight. Where the scale weighs the test weights incorrectly there is the need to

	<p>re-calibrate the scale and re-test the weights after which the product will be re-weighed.</p> <p>4. Where the grade result is in dispute, an independent mediator may be requested to grade the sample under dispute;</p> <p>5. The independent expert grader may give an opinion on the sample in dispute;</p> <p>6. The findings of the independent expert grader are final</p> <p>The losing party in the dispute shall be responsible for travel cost, fees of the independent mediator as well as any standing cost of the transport vehicle for pickup of the sorghum. Consequential damages are excluded from the claim. The independent mediator may be an expert grader from the Ghana Standards Authority (GSA)</p>
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3.0 STANDARD TRADING TERMS

Trading unit	1 Metric Tonne (MT) net weight (in 50kg bags) equivalent to 1000kg . The weight tolerance level per lot upon deposit is +/- 1.0%
Tick size (minimum price movement)	Minimum price increment or decrement by which price may be quoted: 1 Ghana Cedis
Daily Trade Limit	1,000MT for members 500MT for clients The Daily Trade Limit is the total quantity a member or a client is allowed to buy or sell during a trading session.
Weight Tolerance Per Lot	<i>The difference between exact weight recorded and the contract standard weight is adjusted at settlement.</i>
Daily price filter/Price range	The daily price filter is the maximum percentage range, relative to the previous day's closing price, outside of which offer and bid prices may not fall or rise. GCX may change these limits from time to time, on a pre-announced basis. Price Limit For Sorghum: +/- 2 %
Warehouse Receipt Expiration Period	The Warehouse Receipt will be tradable for a period of 90 days from the date of Warehouse Receipt issuance.

Penalty on warehoused goods after expiration of Warehouse Receipt	A penalty of 0.1% per day calculated on the current tradable value of the good, using the closing price of the same grade as the warehoused goods, will be applied after the expiry of the Warehouse Receipt.
Warehouse Receipt	All transactions shall be based on GCX Warehouse Receipt, indicating that commodities are in deposit in a GCX operated or certified warehouse prior to trade.
Contract quote basis	All prices will be quoted “Ex- Warehouse”, exclusive of taxes, fees and charges.
Quotation Factor	Prices are represented in Ghana Cedis per MT
Trading session	Monday through Friday, with the exception of public holidays.

4.0 STANDARD SETTLEMENT TERMS

Pay-in of Funds (Time when funds will be withdrawn from buyer pay-in accounts).	Next working day (T+1)										
Pay-out of Funds (Time when funds will be deposited into seller pay-out account)	Next working day (T+1)										
Trading fees	0.91% of transaction value (Buyer & Seller)										
Regulatory (SEC) fees	0.20% of transaction value (Buyer & Seller)										
Handling and Product Certification fee	The handling and product certification fee will include: <table border="0" style="width: 100%;"> <tr> <td>Sampling and Testing</td> <td style="text-align: right;">No charge</td> </tr> <tr> <td>Handling (Loading & Offloading)</td> <td style="text-align: right;">GHS1.50 per 50kg bag</td> </tr> <tr> <td>Storage & Fumigation (Per Month)</td> <td style="text-align: right;">GHS0.80 per 50kg bag</td> </tr> <tr> <td>Grading, Weighing and Rebagging</td> <td style="text-align: right;">GHS2.50 per 50kg bag</td> </tr> <tr> <td>Electronic Warehouse Receipt</td> <td style="text-align: right;">GHS5.00 per MT</td> </tr> </table>	Sampling and Testing	No charge	Handling (Loading & Offloading)	GHS1.50 per 50kg bag	Storage & Fumigation (Per Month)	GHS0.80 per 50kg bag	Grading, Weighing and Rebagging	GHS2.50 per 50kg bag	Electronic Warehouse Receipt	GHS5.00 per MT
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Grading, Weighing and Rebagging	GHS2.50 per 50kg bag										
Electronic Warehouse Receipt	GHS5.00 per MT										

5.0 STANDARD DELIVERY TERMS

GCX Warehouse Locations	Delivery locations will be GCX certified delivery centers.
Delivery Notice	Warehouse pick-up instructions will be delivered to the Member representing the buyer (T+1)

Pick Up Notice	Member must fill out a pickup notice (PUN) with the exchange before picking up goods
Delivery Period	Number of days the buyer will have to pick up the lots from the warehouse without paying additional charges is T+10 (calendar days)
Failure to Pick up	Buyer is responsible for making arrangement to pick up commodity by T+10 (calendar days). Buyer will be responsible for all warehouse storage charges after failure to pick up the commodity.
Extension of Delivery Period	The Exchange may extend the delivery period in the event of a force majeure situation

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