



# *King Consistency*

**IAOM Arusha, Tanzania**

**Peter Lloyd, USW MEENA Region**

**15 November 2008**



The world's most reliable choice.

# The \$64 million question;

**CONSISTENTLY GOOD FLOUR,**

made from

**CONSISTENTLY GOOD WHEAT,**

processed by

**CONSISTENTLY GOOD MILLERS and BAKERS**

makes

**CONSISTENTLY GOOD PROFITS!**

*The world's most reliable choice.*



# Recession, Sub Prime, Banks, Credit..



- **Businesses to suffer with tighter credit.**
- **Record number of bankruptcies forecast for 2009.**
- **Etc.**

*In the eyes of the customer!*



*The world's most reliable choice.*

 U.S. WHEAT  
ASSOCIATES

# Protein conversion (12%mb – db)

$$\frac{\text{Protein (12\% moisture basis)}}{0.88} = \text{Protein (dry basis)}$$

$$14.0\% \text{pro}^{12\% \text{mb}} / 0.88 = 15.91\% \text{ }^{0\% \text{mb}}$$



# How Much Variability do we have?

- In our Wheat.
- In our Flour.
- In our Process.
- How much is tolerated by our customer?
- Can we reasonably expect to meet his needs?
- If not – what can we do to correct this?



# AVERAGES

- Their average height is 1.52m
- Their average weight is 54 kg
- Their weights range from 44 to 100kg

*The world's most reliable choice.*

 U.S. WHEAT  
ASSOCIATES

**Sublots**

Example of a 14.5% minimum spec.

							TW		M		PRO MIN	
								-0.3		0.3		-0.5
2006	S/L	TIMES	BINS	STOWAGE	Quantity	Odor	58.0	-0.1	13.5	0.1	14.5	-0.2
9-10	1	1302/1407	4	3	1,999,890	OK	59.8	0.0	10.3	0.0	14.7	0.0
9-10	2	1427/1531	6	3	1,995,970	OK	60.3	0.0	10.2	0.0	14.6	0.0
9-10	3	1532/1634	3	3	1,999,950	OK	60.5	0.0	10.2	0.0	14.6	0.0
9-10	MP-1	1818/1920	1	R&R	2,000,105	OK	61.2	0.0	11.4	0.0	**14.3	-0.2
	FR MP-1										14.2	
	REX MP-1					OK	61.2	0.0	11.4	0.0	**14.3	-0.2
9-10	4	2338/0057	5	3	2,000,125	OK	60.6	0.0	11.7	0.0	14.7	0.0
9-11	MP-2	0059/0213	2	R&R	2,000,100	OK	60.6	0.0	11.2	0.0	14.5	0.0
	FR MP-2											
	REX MP-2					OK	60.6	0.0	11.2	0.0	14.5	0.0
9-11	5	0215/0847	1	3	1,999,955	OK	60.5	0.0	11.2	0.0	14.7	0.0
9-11	6	0852/1020	3	3	1,990,060	OK	60.2	0.0	11.0	0.0	14.6	0.0
9-11	7	1024/1154	2	3	1,999,710	OK	60.5	0.0	10.8	0.0	14.5	0.0
9-11	8	1158/1305	4	3	1,989,295	OK	60.0	0.0	10.4	0.0	14.8	0.0
9-11	9	1310/1426	5	3	2,000,055	OK	60.5	0.0	11.1	0.0	14.8	0.0
9-11	10	1429/1541	6	3	1,999,965	OK	60.6	0.0	11.8	0.0	14.7	0.0
9-11	11	1547/1827	1	3	2,000,115	OK	61.1	0.0	11.6	0.0	14.7	0.0
9-11	12	1829/2002	2,5	3	2,275,575	OK	60.4	0.0	10.1	0.0	14.5	0.0
NAME OF INSPECTOR / CODE NO.							Average		10.85		14.65	
							Rounded		10.9		14.7	
GRADE							U. S. No. 2 or Better Dark Northern Spring Wheat, DKG 0.3					

**Running diff.**

**Material portions (Rejected)**

**Running avg.**

**Cargo result**



# Slide – Table of Variability

Specification	Average	Minimum	Maximum
'Ordinary'	As loaded	None	None
Average	Spec.	None	None
Minimum	Spec	Spec -0.5% Lowest s/lot	None
Min. by subplot	Spec	Spec	None
Range specification	Spec	Min. spec	Max. spec.

Hard Red Spring Wheat Wheat Flour.						
Protein (12% Moisture Basis)	12%	DB	-1% Milling loss		Wet Gluten	Flour Protein 14% mb
<b>Specification Basis:</b>	<b>Mini mum</b>	DB wheat	Mill loss			Flour
<b>Specification:</b>	<b>14.0</b>	15.9	14.9		<b>34.6</b>	<b>12.8</b>
<b>High:</b>	<b>14.3</b>	16.3	15.3		<b>35.5</b>	<b>13.1</b>
<b>Low:</b>	<b>13.8</b>	15.7	14.7		<b>34.0</b>	<b>12.6</b>
<b>Average:</b>	<b>14.0</b>	15.9	14.9		<b>34.6</b>	<b>12.8</b>
<b>FLOUR</b>		<b>Pro</b>	<b>Wet</b>			
<b>Range</b>	<b>Protein</b>	<b>14%mb</b>	<b>Wet Gluten</b>			
High:		13.1	35.5			
Low:		12.6	34.0			
Average:		12.8	34.6			

Slide – HRS table

The world's most reliable choice.



# *Caveat Emptor*

**Buyer Beware!!**



*The world's most reliable choice.*

 U.S. WHEAT  
ASSOCIATES

# Steps being taken in the wheat chain

- **Effective Varietal Development.**
- **Good Growing Practices**
- **Maintenance of varietal purity in Certified Seed.**
- **Good communication from Plant Breeder to Grower to Users and back again.**
- **Communication through trade associations such as the various wheat marketing organizations, Millers and Baking Associations**
- **Classification of wheats according to their functionality**
- **Segregation of wheat by functionality at source, and in your silos.**
- **Use of various quality assurance standards throughout the supply chain.**



# Wheat

- Your wheat is the foundation upon which you build your profitability.
- **CONSISTENTLY GOOD FLOUR, MADE FROM CONSISTENTLY GOOD WHEAT, PROCESSED BY CONSISTENTLY GOOD MILLERS AND BAKERS MAKES CONSISTENTLY GOOD PROFITS!**



## Part II - The Mill



GM du Tensift – Marrakech.  
*Combining form with function*

# Mill: Controlling Variability

- **Wheat Specifications**
- **Intake testing**
- **Appropriate segregation of wheats in storage**
- **Blending, blending and blending again**
- **Screenroom adjustment**
- **Cleaning different wheat types independently**
- **Optimizing conditioning**
- **Analyzing wheat VALUE factors**



# Modern Milling Technology

- Automatic moisture control
- On-line NIR(R) analysis.
- Color sorting.
- Use of decortication.
- Optimizing set-up of core machines (rollermills, sifters and purifiers) to ensure that the right stocks are in the right place.



## **Suggest use of;**

- **Planned maintenance programs**
- **Production Planning Methodology**
- **Careful control of return and start-up flour**
- **Blending flours**
- **Quality testing plans**
- **Setting specifications and tolerances for key quality parameters with the customer .**
- **Good practice policies in respect of areas such as Hygiene, Pest Control and Health and Safety**
- **Quality management standards such as HACCP, ISO 9000, BRC, EFSIS and IFS**

# Typical UK Bakery flour specification;

## Flour specification and tolerances for :

- Moisture 14%  $\pm$  0.6%
- Protein Target +/- 0.2%
- Water Abs. Target +/- 2%
- Ash Not used in UK.
- F/Number 250 secs + 50 -0 secs
- Resistance +/- 50 BU (where specified)
- Extensibility +/- 2 cm (where specified)



**How does your mill compare?**

# Some sage advice from an old miller

- ‘If you want the best advice that my milling mentor offered to me then you can’t go wrong if you **‘Blend, Blend, Blend’!!!**”





**Britain's No.1 Baker**  
**Founded in 1876**

*The world's most reliable choice.*







- *We believe that the only way to manage consistency, and our destiny is to be in control of the complete supply chain from wheat to flour. That is from the knowledge of plant breeding and wheat genetics, to farming and agronomy, supply chain logistics and finally setting the highest standards of flour milling requirements.*

*Bob Beard, Warburtons UK*

# The \$64 million question;

- **CONSISTENTLY GOOD FLOUR,**
- **MADE FROM CONSISTENTLY GOOD WHEAT,**
- **PROCESSED BY CONSISTENTLY GOOD MILLERS AND BAKERS**
- **MAKES CONSISTENTLY GOOD PROFITS!**



On behalf of all of us at the US Wheat Associates team.....

Thank you for your attention, and thank you for your valued business over the past year. We wish you every continued success in the future.



The world's most reliable choice.