

2017 Oat Market







NAME THAT PRODUCT?









Who is Grain Millers

GMI Cmpany Video.mp4





Grain Millers, Inc. produces a variety of grain-based ingredients from sources around the world. Our core focus is on oat-based products. Over the years, our Milling group has grown to also include wheat, barley, rye, triticale, flax, and corn.



Milling Locations

Our Mills are located in St. Ansgar, IA; Eugene, OR; Yorkton, SK; and Marion, IN



Keys to Become a Strategic Supplier to a Food Manufacturer

Understand who the customer truly is and what drives their decisions to buy

Understand the customer's definition of QUALITY

Understand the differences between "a crop" and "an ingredient", and those factors that drive value for the end user.

Fully understand and document your market, your product, and your capabilities better than your competitors.

Food purchasing is the most year-round process affecting consumers. Grain marketing should also be a year round process

Grain Quality and Specifications.



GRAIN MILLERS

Grading Factors

Quality Standards

	Target	Min/Max	Spec
Test Weight	40	36	38
Moisture	13%	10-14%	13.5%
Thins	5%	20%	12%
De- Hulled	6%	12%	8%

Foreign Material

	Target	Min/ Max	Spec
FM (Conv)	0%	3%	2%
FM (Org)	0%	5%	3%
Legumes	0%	1%	0.5%
Oil Seeds	0%	1%	0.5%
(Canola)			_
Barley	0%	2%	1%
Wheat	0%	2%	1%
Buckwheat	0%	.5%	0%
Total Other	0%	2%	2%
Wild Oats	0%	2.5%	2%
Ergot	0%	0.02%	0.02%
Mustard Stems	0%	0%	0%

Damage

	Target	Min/Max	Spec
Frost	0%	2%	0%
Sprout	0%	2%	0%
Green	0%	1%	0%
Total	0%	3.0%	2%
Damage			
Vomitoxin	0%	1.0 ppm	0.1ppm
Heated	0%	0.1%	0.1%

Oats Official Grain Millers Inc. Purchasing Specification

Test Weight Conversions

Lb/W.bu	g/0.5 L	Lb/W.bu	g/0.5 L
34.0	219	39.0	251
34.5	222	39.6	255
35.1	226	40.0	258
35.5	229	40.5	261
36.0	232	41.0	264
36.5	235	41.6	268
37.1	239	42.1	271
37.6	242	42.5	274
38.0	245	43.0	277
38.5	248	43.5	280
1 Discounts MAY apply to any grain			

- Discounts <u>MAY</u> apply to any grain delivered out of spec. See – Discount Schedule
- FM Thru 8/64" triangle sieve
 Thins Thru 5/64" x ³/₄" slotted sieve
- 3. $1 \text{ mins} 1 \text{ hru } 5/64^{\circ} \text{ x } \frac{3}{4^{\circ}}$ slotted sie 4. Plump – On top of 6/64" sieve
- 5. Moisture Tested on Dickey John

Pest/Pesticide/Odors/FM - Restriction

- Oats must contain <u>NO</u> signs of infestations (dead or alive) or insect damaged kernels delivered to <u>ANY</u> GMI facility
- Oats which have been treated with glyphosate as a pre-harvest desiccant will not be accepted due to problems in the functionality of milling.
- Oats must not contain detectable levels of pesticide, chemicals, or any other objectionable odors
- May not contain peas or mustard stems

Contact Person

Conventional: Jessie VanderPoel 952-983-1277 jessie.vanderpoel@grainmillers.com

Organic: Sam Raser 952-983-1311 sam.raser@grainmillers.com Farmers raise a "crop"

Grain Millers buys "an ingredient"

When you truly understand your crop's role as a food ingredient and the process to convert that grain into food, you begin to fully appreciate the **SPECIFICATIONS** and the steps necessary to make **QUALITY**.

Grain Grading- Why we grade for certain attributes

Test Weight:

- Defined by the U.S.D.A in Book II, Chapter 7 Section 7.13 as "weight per Winchester bushel (2,150.42 cu inches)"
- Test weight has a direct relationship to the amount of groat material available in the oats.
 Oats with larger groats and higher test weight generally perform better during milling.
- Lighter Test weight product also tends to plug equipment causing shut downs on mill time.

Moisture:

- Defined by the U.S.D.A in Book II, Chapter 7 Section 7.10 as "water content in grain as determined by an approved device"
- Oat moisture affects how the oats must be stored as well as how long they can be held. Oats with moisture above the allowable level can cause storage issues such as heating, off flavors, and odors.
- If moistures are 14% you could lose up to but not limited to 1 ton per hour on kilning
- Under 12% you will start to see breakage in the hulling process.

Groat Protein:

 Protein is an indicator of quality of the oats. Low protein oats have a lower nutritional value as a food product and must be avoided.

Grain Grading- Why we grade for certain attributes

Small (Thin) Oats:

- Thin oats are the oats that go thru a 5/64 slotted sieve. Thin oats have less groat material available for milling and due to their small size can cause performance problems during the milling process.
- Some of the problems that can occur are; harder time hulling, more hulls in the finished product, and more whole oats in the finished product.

Sound Cultivated Oats SCO:

- Defined by U.S.D.A in Book II, Chapter 7, Section 7.22 as "kernels and pieces of oat kernels (except wild oats) that are not badly ground, weather, frost, germ, heat, sprout, or otherwise, materially damaged, diseased, or insect-bored"
- SCO is a good indicator of overall quality of oats. High % SCO lends itself to good performance during milling.

Hulled Groats (De-Hulls):

- Hulled groats present in an oat sample can indicate the presence of naked oat varieties these varieties are more susceptible to various quality defects.
- De-hulls can also represent a risk in high rancidity rate oats especially if stored for an extended period of time.

Grain Grading- Why we grade for certain attributes

Foreign Material and Other Grain:

- Defined by U.S.D.A in Book II, Chapter 7, Section 7.23, respectively as "All matter other than oats, wild oats, and other grains" and "Barley, canola, corn, cultivated buckwheat, flaxseed, guar, hull-less barley, non-grain sorghum, polish wheat, popcorn, poulard wheat, rice, rye, safflower, sorghum, soybeans, spelt, sunflower seed, sweet corn, tritcale, and wheat."
- FM lowers the quality of oats.
- All FM must be removed prior to the milling process. Higher FM can make the removal process difficult thus slowing down the mill directly effecting mill yields.
- Higher FM also increases risk of contamination in the finished product.

Damaged (Including Heated):

- Damaged grain includes the following; fireburnt, heated, frost, sprout, grass green, fusarium, ochratoxin, mold, and mildew damage. All of these are functions of damages that occurred during the growth and storage conditions experienced by the oats.
- Damaged Grain can have a negative impact on either the processing capability of the oats (Frost, sprout, grass green) or the finished product quality (fireburnt, heated, fusarium, ochratoxin, mold, mildew.)

Groat Discoloration:

 Groat Discoloration is a direct product of the harvest and storage conditions that the oats were subject to. Discolored groats in high enough concentration can have a significant detrimental impact on the quality of the finished product.

PROPRIETARY & CONFIDENTIAL

Variety Selection



Harvesting and Storage

Swathing

- Target average kernel moisture of 25 percent or below
- Greenest kernels just changed to cream coloured
- Green hulls not desired

Desiccation

- Legal
- Caution needed timing critical
- Quality implications

• Combine

- Avoid dehulled kernels
- Slow cylinder speed and widen concave clearances if dry conditions

• Drying

- Target of 12-13 percent moisture
- Bin aeration possible
- Dryer temps less than ~70C (160F)
- Grain temps between ~45 to 50C (110 to 120 F)

Storage

- See drying section above!
- CLEAN, dry storage with air is best



Where are Prices are at.



Conventional Small Grain Prices

Grain	
Oats – Current Through Oct	\$2.90/bushel
November / December	\$3.10/Bushel
Jan/Feb/March	\$3.20/Bushel
April/May	\$3.30/Bushel
Barley – August – Sept	\$4.00/Bushel
Rye – Sept / Oct	\$4.60/Bushel

Organic Wheat /Barley / Oats (CAD)



Bird's Eye View of the Organic market

Global organic demand continues to increase

- The global organic food market is projected to grow at 16% annually from 2015 to 2020
- \$43 billion USD. The EU is a close second on gross annual sales.
- 84% of US consumers purchase Organic
- 82 countries with organic regulations



2016 North American Organic Oat Market

- Organic oat demand grew by 10-12% from 2011-2015
- 2015 2016 we only saw 7% growth.
- 2015-2016 We had record high prices both in North America and in EU
- High prices drove more organic acres into the ground on both sides of the Atlantic in 2016
- Record high North American farm prices in 2015- 2016 also drove imported grain into North America. No oats will be imported to North America this year.
- Grain Millers estimates that in 2016 North American organic acres were up 5-10% above the 2015 planting.
- 2017 organic oat planting will be flat year over year.

Why Organic is Growing?

- Why is this growth occurring?
 - Health concerns including chemicals, glyphosate and GMO's
 - Increased awareness of health benefits
 - Improved standard of living
 - Government initiatives Crop Insurance, funding for marketing, etc..
 - Organic availability- A lot of this has to do with more products being offered and more shelf space being offered.
 - Stagnant growth in conventional oat products only 1% growth
 - Strong growth in organic oat products 12% growth

Thanks For Coming

Sam Raser Grain Millers Inc 952 983 1311 952 292 2578 <u>ram.raser@grainmillers.com</u>

