Whole Grain Summit

Modern Wheat: Nutritious Food to Feed the World or Corrupted Foodstuff?

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Who Are We?

• Organized in 1972 at the all-time low of wheat flour consumption at 110 lbs/person

• 80% of income from 26 wheat producer organizations; the remainder from industry members
Charges Being Leveled Against Wheat/Grains

- GMO wheat is causing the increase in celiac disease and non-celiac gluten sensitivity (NCGS)
- Modern wheat contains more gluten/gliadin
- Wheat/grain causes inflammation
- Wheat has caused the obesity epidemic
Modern Wheat – GMO?

• There is no GMO wheat commercially available in the world
• All auto-immune diseases have increased
• Current best suspect is the change in our gut microbiome
What Causes Celiac Disease?

1. Genetics – you **must** have a gene
2. Exposure to gluten
3. A “leaky” gut
4. Trigger - stress, trauma
   - Surgeries, pregnancy, etc., death in the family or divorce
   - Viral infections
Non-Celiac Gluten Sensitivity
New and Controversial

- Abdominal pain - 68%
- Eczema, rash - 40%
- Headache - 35%
- “Foggy mind” - 34%
- Fatigue - 33%

- Diarrhea - 33%
- Depression - 22%
- Numbness in extremities - 20%
- Joint pains - 11%
Celiac Disease and Non-Celiac Gluten Sensitivity (NCGS)

- Estimated less than 1% of Americans have celiac disease
- FODMAPS have been credited with the majority of reported effects formerly attributed to NCGS
- Dr. Stephano Guandalini, MD
  – Founder and Director of the Chicago Celiac Research Center, estimates less than 0.5% of Americans have NCGS
Where’s The Research?

• In 2011, Monash University in Australia announced there were a high percentage of people who were “sensitive” to gluten but did not have celiac disease
• In August 2013, the same researchers said they were wrong
• They determined that people were rarely sensitive to gluten
• The problem is FODMAPS – Fermentable Oligo, Di, Mono saccharides and Polyols.
The Web is Driving the Gluten-Free Message

Of all the messages on the internet about gluten, only .5% come from scientists (celiac researchers and dietitians)
Modern Wheat – Bred to contain more gluten and more potent gliadin?
Gluten Levels in Wheat – Unchanged in the U.S.

- Analysis found that gluten levels in various wheat varieties have changed little on average since the 1920’s
  - Gluten addition to breads and foods has increased
  - Vital gluten imports are estimated to have increased 300% since 1977

Gluten Levels in Wheat – Unchanged in Canada

- Two studies at the U of Saskatchewan

- 1% change in protein content (80% of the protein is gluten) since 1860 – Red Fife wheat*

- Continuing research to discover if there are changes in the major celiac disease protein – gliadin.

WFC’s Gluten-free Messaging

• Acknowledge the seriousness of Celiac disease and gluten intolerance -- while providing information on why a gluten-free diet is NOT recommended for the general population
• Gluten actually increases beneficial gut and colon bacteria in healthy individuals
• Most gluten-free foods are NOT whole grain or enriched – decreased fiber, B vitamins (riboflavin, thiamin, niacin and folic acid) and iron
• Gluten-free does not mean “healthier”
• Gluten-free foods are often more expensive
Does Modern Wheat Cause Inflammation?
Wheat and Inflammation


Does Wheat Cause Obesity?
Wheat and Obesity


Relationship Between Carbohydrate Intake and Body Mass Index

Gaesser. JADA 2007; 107:1768-1780
Carbohydrates and Grains for Various Health Outcomes

Published Articles in Peer-Reviewed Literature, 2010-2013.

Source: Glenn Gaesser, ASU. 2014
Wheat consumption is not associated with high levels of belly fat OR obesity

- The French eat 1.5 times as much wheat as the US and have 1/3 the obesity rate
- The Italians eat twice as much wheat as the US and have ¼ the obesity rate
Wheat Consumption Trends Do Not Follow Obesity Trends 1830-2010

Recent Wheat Flour Consumption Trends

U.S. Per Capita Wheat Flour Disappearance

Sources: US Dept. of Commerce Bureau of the Census and NAMA
Questions?

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