

## Summary of Whole Grain Summit 2015

This conference, co-sponsored by the Moore Family Center at Oregon State University and the Grains for Health Foundation, took place June 24-26 in Portland, OR

### Session I: Introductions

Co-chairs **Emily Ho** (USO) and **Len Marquart** (Grains for Health Foundation) made opening remarks, followed by **Catherine Woteki**, USDA who spoke on USDA programs for partnerships between researchers and manufacturers interested in commercializing that research. Then **Kent Thornburg** of OSU spoke on the importance of early diet on lifelong health. A few quotes and notes that caught our attention:

- "PHAD - we need to make grains Profitable, Healthy, Affordable, Desirable." *Len Marquart*
- "Poor diet leads to genetic silencing." *Kent Thornburg, OSU*
- "The obesity rise in the 90s may be due to the 3rd generation of people eating processed food." *Kent Thornburg* [If your grandmother was eating a poor diet when she conceived your mother, the egg that formed you dates from that time too, compounded by your mother eating detrimentally processed foods and now you eating them.]
- "Grains and other seeds are a lot like eggs. They have all the nutrients needed to support a growing biological organism, so eating whole grains has a whole lot of sense to it." *Kent Thornburg*

### Session II: State of the Grain Market

**Colleen Zammer** of Bay State Milling presented data on the growth of the whole grain market. She noted that, according to Mintel, global launches with whole grain claims rose in 2012, 2013, and 2014, but today the greatest growth is in Europe, Asia Pacific, and Latin America – growth in North America has slowed. **Lisa Feldman** of Sodexo then delivered a dynamic talk on whole grains in schools. She said the transition to 100% whole-grain rich has been challenging – but it's working and we shouldn't turn back.

**Jimmy Simonte**, of Domino's, and **Don Trouba**, of Ardent Mills talked about how manufacturers can help their customers with product development for a win-win experience (in this case, Domino's Smart Slice pizza for schools). **Rebecca Lindberg**, of the Minneapolis Heart Institute Foundation, shared information about a community-wide intervention in New Ulm, MN to get more whole grains (and other healthy foods) into stores, restaurants, homes. **Roberto Ranieri**, from Italy, talked about a European HealthGrain project to make a healthier loaf of bread, and **Xiadong Yu**, a government official from China talked about his country's new whole grain packaging symbol (inspired by the Whole Grain Stamp) and the requirements for it. Quotes and notes:

- "We've gotten used to the flavor of white flour -- which isn't a flavor at all!" *Colleen Zammer, Bay State Milling*
- "Our number of participants are above what they were before" *Lisa Feldman, Sodexo* -- kids aren't dropping out of school lunch!
- "Dear lunch lady: your macaroni and cheese is the best thing I've eaten in 20 years" a seven year old, quoted by *Lisa Feldman, Sodexo*
- "I am vehemently opposed to any rollback [in school lunch requirements for whole grains]. We think it's ridiculous to roll back on the solutions we've already created. We're where we need to be now." *Lisa Feldman*
- "People are still confused about 'whole grain' and 'serving' and whether they should be eating grains at all." *Rebecca Lindberg, New Ulm Project*
- "Whole grains are the first choice to restore the original function of the GI tract." *Yu Xiaodong, China*
- "We've started eating red wine, olive oil, cheese because they are Mediterranean. Now we must make consumers think whole grains are the new fashion." *Yu Xiaodong, China*

### Session III: The Whole Grain Debate – Fact or Myth?

This session featured three related talks addressing truths and fictions about gluten, celiac disease and wheat, followed by four speakers discussing how we carry out research on whole grains.

**Matt Riley, MD**, a pediatric gastroenterologist, discussed non-celiac gluten sensitivity and whether it may be attributed to FODMAPs; it's quite likely the microbiome is involved. **Judi Adams**, Wheat Foods Council said only 5% of information about gluten on the web is from scientists (source?) and that wheat consumption has actually increased since *Wheat Belly* was published. She mentioned Ardent Mills research showing 2.5% of US households account for most of GF product sales. **Fred Brouns**, University of Maastricht, gave an overview of the many compounds – beyond gluten – that have been targeted as potentially problematic; most are destroyed by heat; both yeast and fermentation remove fructans in bread.

**David Jacobs**, University of Minnesota, spoke about the robustness of the epidemiological evidence for whole grain benefits and the difficulty of doing clinical trials on entire eating patterns (not just individual foods or nutrients). **Paul Jacques**, Tufts University, questioned whether it makes sense to use “pharma-style” Randomized Control Trials, especially since drugs are usually meant for disease treatment and diet for prevention. **Jan de Vries**, from the Netherlands, reiterated similar points. **Simin Liu**, of Brown University, advocated for \$350-\$400 million for a 4-year study of 5,000-10,000 people. During Q&A it was suggested that we already have a good study in progress: we can compare the health of students at schools conforming to the new whole grain rules with those at schools that have opted out. A few quotes and notes that caught our attention:

- Gluten increases good gut and colon bacteria. *Judi Adams, Wheat Foods Council*
- "There is already a lot of information on whole grain and its benefits to health, so lets step into action." *Jan de Vries*
- "Let's don't confuse the science of whole grains with the pleasures of eating. We don't need more studies treating it as a drug. The extension community is already moving ahead." *Tammy Bray, Dean, OSU College of Public Health (in Q&A)*
- "There's no more reason to do *any* more epidemiological studies on whole grains. The ones we have are totally consistent." *Paul Jacques, Tufts*

### Session IV: Networking (no speakers)

#### Session V: Food Attributes and Innovations

In part one of this session, **Nancy Ames**, Agriculture and Agri-food Canada, talked about the importance of considering health when breeding new varieties of all grains – and when growing and processing them. **Eric Decker**, U. Mass., talked about processing approaches to increase consumer acceptance of whole grains like particle size, white wheat, pre-gelatinization, sprouting. **YiFang Chu**, from Quaker, reviewed research showing that viscosity in grains can increase their health benefits: oatmeal lowers cholesterol better than the same oats in a cold RTE cereal. **Joel Gittleson**, Johns Hopkins, talked about efforts in Baltimore to make more whole grains available in corner stores. **Laurian Unnevehr**, U. Illinois, said whole grain consumption is up but there's still a price gap that puts a damper on consumption.

The second part of this session featured several scientists reviewing their work in food labs: **Gary Hou**, Wheat Marketing Center, on novel technologies in wheat noodle development; **Lirong Zhou** and **Sharon Book**, of ICL, on frozen dough, wheat noodles and leavening; **Andreia Bianchini**, U. Nebraska, on microbial contamination; and **Gang Guo**, Ardent Mills, on sprouted grains. Notes and quotes:

- "We have to test them as whole grains right from the beginning." *Nancy Ames, Agri-Canada*, on how most grain breeding programs only assess grains in their refined

form

- "We look at yield, disease resistance, milling properties but we haven't really looked at how these grains will function in a human body." *Nancy Ames*
- "We need to look at the effect of fungicides and glyphosphates on nutrients. We haven't done that yet." *Nancy Ames*
- "The original grain is designed by the plant to be nondigestible" so processing is necessary to make it available to humans. *Eric Decker, U. Mass*
- The sourdough process can lower phytates even more than sprouting. *Eric Decker*
- WG purchases have increased over the past decade; WGs still cost about 24-46% more; 46% of people get at least 48g whole grains per day but total grain consumption is double the recommended amount; WG purchases are one of the few areas of progress in healthy eating; most increases in WG purchases are in high income consumers due to price. *Lauren Unnevehr, U Illinois*
- Sprouted grain product launches are growing quickly. Sprouting involves three steps – steeping, germination, and kilning. Then you must "put them back to dormant again." Sprouted wheat is lighter in color, sweeter, higher in nutrients. *Gang Guo, Ardent.*

### **Session VI: Technology and New Tools in Nutrition Education**

In this session, **Paula Quatramoni**, Boston University, showcased an innovative interactive nutrition program for middle schools, called KickinNutrition.TV. **Jonathan Richter**, U. Oregon, talked about video game design and its possible applications. **Kay Hongu**, U. Arizona, spoke about a smart-phone-based initiative to get kids moving in Arizona. **Carol Boushey**, U. Hawaii, detailed how smart phones can use images connected to complex database algorithms to analyze diet more accurately than traditional food frequency questionnaires.

### **Session VII: Whole Grain Community / Poster Sessions (no speakers)**

#### **Session VIII: Consumer Messaging and Education / Communication**

This session featured two speakers. **Kathleen Zelman**, from WebMD, talked about how to communicate nutrition messages clearly in print and online. She urged us to "write in a spicier, brighter way" and use no more than three key points. Health professionals must learn to compete with those peddling pseudoscience – we can't be boring! **Cynthia Harriman**, Oldways Whole Grains Council, talked about the four groups in the public for whole grain information: those already eating whole grains, those eating refined grains, those rejecting wheat, gluten or all grains, and kids. She suggested succinct, science-based come-backs to all today's popular grain myths, and detailed the work of the Whole Grains Council in educating people about whole grains. (slides available on request)

#### **Session IX: Building a Healthier Food Environment**

Four vibrant speakers anchored this session. **Shari Steinbach**, retail dietitian for Meijer, spoke about the role of supermarket dietitians in connecting shoppers with healthier brands, with examples from many store chains. (We love that she gave a shout-out to many Oldways programs, like Med Diet Month, Whole Grains Month, our Supermarket Dietitian Symposium, and the Oldways Nutrition Exchange!) **Amy Myrdal Miller**, Farmer's Daughter Consulting, talked about the Culinary Institute of America's Healthy Menus Collaboration, to bring healthier foods to QSRs and other volume foodservice operations. **Garrett Berdan**, chef for the Oregon Public Schools, spoke about his work supporting the "lunch ladies" of Oregon. **Kathryn Hoy**, who works with Brian Wansink at Cornell, spoke about easy ways to "make the healthy choice the easy choice." Notes and quotes:

- "It's less expensive to eat healthy than to get sick" *Shari Steinbach, Meijer*
- There's a 39% increase in basket size with sampled items. *Shari Steinbach, Meijer* (We can use this to demonstrate importance of WGSD participation)

- "Over 70% of supermarkets have a supermarket RD" *Shari Steinbach, Meijer* [225 at HiVee; some stores have 2]
- "QSRs won't return manufacturers' calls if they're trying to sell to them. But if they call and say, 'Our corporate chef will come out for a day' 99% will say yes." *Amy Myrdal Miller, Farmer's Daughter Consulting*
- 100% of the members of the Culinary Institute of America's Healthy Menus R&D Collaborative think that the focus on whole grains is here to stay (compared to 78% of other chefs), 92% of members are currently serving WG or are planning to use them in the future (compared to 48% of other chefs); these chefs are more interested in intact WG than WG flour. *Amy Myrdal Miller*
- People listen to health advice when fed, not hungry, so samples are important; young kids don't respond to health/whole grain in the title of the item and prefer catchy titles (X ray vision carrots) but high schoolers like functional WG titles (healthy skin whole grain pasta); schools need food companies to tell them which of their products meet guidelines; health halos are solidified in middle school. *Katherine Hoy, Cornell*
- "Life's too short to eat bad food." *Robin Asbell, chef*
- "There's good opportunity for whole grains in schools. Many kids are sophisticated eaters. They know what quinoa is -- and how to pronounce it!" *Chef Garrett Berdan, OR public schools*
- Schools need access to more intact whole grains and advice on how to market them to kids. *Chef Garrett Berdan, OR public schools*

## **Session X: Call to Collaborative Action**