



# Kernels

Winter 2014

**Why Gluten-Free May Leave You a Little Flat**



**An Interview With Colorado Farmer Sara Olsen**



**Introducing a New Column-Christy's Cocina**



**Plus Great Recipes, Photos from FNCE® and more...**



Wheat Foods Council  
WheatFoods.org



## A word from Judi Adams

One of the things I love most about my job at the Wheat Foods Council is working with food. Obviously, food is essential to keep our bodies functioning, but it is so much more than that. Its many tastes, forms, textures, and colors enable us to create tantalizing dishes that nourish not only our physical self but also our spirit.

With that in mind, I'd like to encourage all our Kernels readers to commit to trying new recipes and wheat foods in 2014. To help get you started, in this issue, we shine the spotlight on couscous, bulgur and wheat berries – three wheat foods that may be new to many of you. Accompanying our article about these delicious, nutritious wheat foods, we offer three tasty recipes: Breakfast Couscous, Chicken Bulgur Casserole, and Tortilla Wheatberry Bake.

The new year is also a time when people focus on "hot" trends, particularly when it comes to food and nutrition. In this issue, we highlight the ongoing gluten-free craze, tempering it with a healthy dose of reality about what you're missing when you give up gluten-containing foods for non-medical reasons (i.e., you have not been diagnosed by a doctor with celiac disease or non-celiac gluten sensitivity).

We also want to better acquaint you with some of the people who make it possible for us to enjoy all the wonderful wheat foods on grocery store shelves – wheat farmers. We'll introduce you to Sara Olsen, a fourth-generation wheat farmer from Yuma, CO. A young mother, Sara will share some of her thoughts and insights about raising waves of amber grain while also raising a family.

To round things out, we welcome a new contributor to Kernels, Christy Wilson, an RD from Arizona, who will share her passion for nutrition and delicious food spiced with the textures and flavors of her hometown, Nogales.

Judi Adams, MS RDN,  
President, Wheat Foods Council

# Welcome

# FNCE 2013

## Talking Wheat Foods in the Lone Star State

Education was priority number one at the 2013 Food & Nutrition Conference & Expo™ in October in Houston. The WFC booth featured samples of the six classes of wheat along with products made from each class. Special guests Dr. Brett Carver, wheat breeder and National Wheat Improvement Committee chair, and Colorado wheat farmer Sara Olsen joined the booth team to answer questions about wheat and how it is grown.

Rounding out our team were WFC President Judi Adams, Vice President Gayle Veum, and California Wheat Commission Executive Director Janice Cooper.



Sara Olsen and Brett Carver share their expert advice



Our booth showed the different classes of wheat and the products they make.



It was fun to reconnect with a number of "alumni" of our 2012 Wheat Safari tour



We had a steady stream of visitors who had lots of questions for our staff and experts.

# Go With the Grain:

## Why Gluten-Free May Leave You a Little Flat

Michele Tuttle, MPH, RD

There's no doubt about it: Gluten-free is a hot trend in the grocery aisles.

Fueled by vocal celebrities like Miley Cyrus and athletes like the Garmin Cycling Team, gluten-free product sales increased by 44% from 2011 to 2013. And, it's not predicted to stop anytime soon. Market research firm Mintel estimates the gluten-free market will grow by 48% from 2013 to 2016, reaching heights of \$15.6 billion annually <sup>(1)</sup>.

Approximately 1% of the population has celiac disease, an autoimmune response which causes damage to the intestinal tract when gluten (found in wheat, rye and barley) is consumed. In addition, up to 6% of consumers may be gluten sensitive, experiencing symptoms such as fatigue, "foggy mind," diarrhea, depression and joint pain when they eat foods containing gluten. So, if more than 93% of us are enjoying our gluten-bearing foods, what's all the fuss about? Should we listen to all the hype and give up bread, beer, and pasta? Here are a few things to consider before passing up the bread basket:

1. Wheat-based foods supply most of the folic acid consumed. Products made from wheat flour enriched with folic acid are a primary reason for the huge reduction in neural tube defects over the past 15 years <sup>(2)</sup>. The Centers for Disease Control and Prevention (CDC) selected folic acid fortification of enriched grain products as one of top 10 public health achievements in the first decade of 21st century.

2. Whole-grains such as whole wheat are a major source of fiber in the diet and have been shown to have protective effects against heart disease, diabetes, and cancer <sup>(3, 4)</sup>.



3. Gut microflora thrive on non-digestible carbohydrates (oligosaccharides) known as prebiotics. Prebiotics encourage a species of bacteria called bifidobacteria that produce butyrate, a short chain fatty acid that is thought to be particularly beneficial to colon health <sup>(5)</sup>. Whole wheat and wheat dextrin are both sources of prebiotics in the form of oligosaccharides, and wheat is the largest contributor of oligosaccharides (71%) in the American diet <sup>(6)</sup>.

What's really interesting is who is going gluten-free and why, especially when you consider that going gluten-free is expensive. The cost of a gluten-free food can be more than 200% higher than its gluten-containing counterpart. It turns out that most of the people buying gluten-free foods do not have celiac disease and are not gluten-sensitive: 65% of consumers who eat or used to eat gluten-free foods

do so because they think these foods are healthier, and 27% eat them because they feel they aid in their weight loss efforts <sup>(1)</sup>.

In addition, athletes are turning to gluten-free foods to boost performance and avoid gastro-intestinal distress. For athletes who are gluten-sensitive, avoiding gluten may make sense. But for most athletes, particularly endurance athletes who typically rely on carbohydrate-rich foods like pasta, bread and cereal, avoiding gluten may be unnecessary,

So, if more than 93% of us are enjoying our gluten-bearing foods, what's all the fuss about?

expensive and inconvenient. In addition, at this point, there is no scientific evidence that avoiding gluten will improve athletic performance unless you have undocumented celiac disease or are experiencing gluten-sensitivity. What will make you a better athlete is to train smart, and eat sensible portions of a wide variety of foods, including enriched and whole grains, fruits, and vegetables, all of which are known to decrease inflammation and promote healthy digestion.

### References:

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Michele M. Tuttle, MPH, RD is head of Tuttle Communications, specializing in food, nutrition and health communications

# Colorado Wheat Farmer Sara Olsen Weighs In On Wheat Farming



Meet Sara Olsen, a fourth generation wheat farmer whose family has farmed on the high plains north of Yuma, Colorado, for almost 100 years.

**Q:** What made you decide to become a wheat farmer, and why did you chose to farm in Colorado? How long have you been farming there, and who were your mentors?

**Olsen:** My mother's grandparents came to Yuma County over a hundred years ago and opened the general store and grocery, and my father's Danish grandparents began the farm we currently own in 1917. I grew up on our farm, where we had a dairy, as well as alfalfa and grain crops. After graduate school, I returned to help my parents in 1995 and have been working on the farm ever since. My family has taught me all I know about agriculture, although friends, acquaintances,

magazines and agriculture organizations have expanded my understanding of markets, technology and business. We currently raise wheat, corn and millet. My daughter and two nephews will be the 5th generation to take care of our land.

**Q:** What are the day-to-day demands of running a wheat farm?

**Olsen:** The daily demands of wheat farming are endless and varied. Every day is different which is what I like most. Some days are filled with machine repair and maintenance, while others are spent in active production - planting, spraying, harvesting or watering crops. Sometimes we clean and plan for the next season's crop or year. Other responsibilities include paying bills, marketing crops, taxes, insurance, and all other tasks necessary for running any business. While days are long and busy, farming affords the flexibility to watch the snow fall or play basketball in the shop when there is free time.



**Q:** With regard to your crops, how do you determine which varieties of wheat to plant and how much?

**Olsen:** In Colorado, we rely heavily on our land-grant university to provide new and profitable wheat varieties. When we sell wheat, a farmer-approved assessment of two cents per bushel is collected. This money is used by the Colorado Wheat Administrative Committee (CWAC) to fund research and for export and domestic consumption programs. As past president of CWAC, I am the first woman to hold that position. A large portion of the assessment goes to our wheat-breeding program at Colorado State University, which has done an excellent job providing farmers with high-yielding, disease resistant, and excellent quality wheats. We also rely on our extension service and seed dealers to provide data on new varieties and offer seed-ing recommendations.

**Q:** Have advances in wheat research improved U.S. wheat crop yields from year to year in Colorado and overall? Also, what strides have been made with regard to developing more drought or weather tolerant wheat varieties or determining the best varieties to plant?

**Olsen:** On our farm, average yields have increased steadily over the years. We believe this is due to improved production techniques and improved varieties. New breeding technologies have helped bring excellent varieties to the farmers yielding more with less rainfall. DNA marker assisted selection has helped scientists develop rust resistant varieties, herbicide resistant varieties, and confirm dough strength genes in certain wheats.



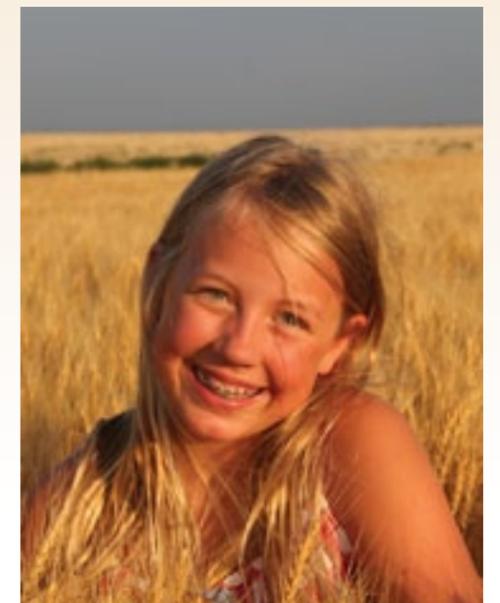
**Q:** With the demand for hard white winter wheat increasing as consumers eat more whole grain foods, how are wheat farmers adjusting to meet this demand? How has the demand for whole grain foods affected your personal business success?

**Olsen:** In Colorado, we have a variety of wheat called Snowmass that farmers grow and contract to a major miller

who supplies flour for a lot of the whole white wheat products on the market today. If you have eaten Sara Lee Soft and Smooth bread, you have eaten Colorado white wheat! Growing white wheat has sometimes proven a challenge to farmers, because it must be separated from red wheat at harvest, and it often doesn't yield as well as traditional reds. Due to breeding advances, newer white variety yields are increasingly competitive. We hope to see more and more white wheat grown in the US as demand grows both at home and in our overseas markets.

**Q:** How should the wheat industry meet the ongoing challenge of educating consumers about the nutritional benefits of eating whole wheat foods when they are constantly bar-raged with new fad diets and unsubstantiated health claims?

**Olsen:** The wheat industry should continue to proactively educate consumers about the nutritional value of wheat foods. Most consumers are unaware of what happens on the farm to grow their food, and they are naturally skeptical about what they do not understand. They aren't eating vegetables from their mom's garden, fresh bread from grandma's oven, or milk from their uncle's cow. As a result, they often rely on inaccurate sources for their food and nutrition information. As farmers, we tend to be a solitary group who just want to do our job. However, we need to understand that part of our job is to help consumers understand how we produce their food and reassure them that it is healthy. I live in the middle of nowhere, but I try to use technology, social media, and agriculture organizations to share my family and farm and acquaint myself with the thoughts and concerns of everyday people. Women in agriculture need to do a better job of educating other women and moms about the nutritional value of eating wheat foods. Farm kids provide a great example of eating a varied and balanced diet, while also getting lots of fresh air and exercise. They are healthy and fit, because they have a sensible lifestyle many Americans have lost sight of.





## Couscous, Bulgur and Wheat Berries – Uncommon Wheat Grains Become Part of Everyday Meals

More and more people are heeding the advice of nutrition experts and embracing grain foods as a heart healthy source of fiber and essential vitamins. Chefs, food and health magazines, cooking show hosts, and others in the food industry have helped introduce family cooks to some unfamiliar wheat grains like couscous, bulgur and wheat berries. They have de-mystified these grains by demonstrating easy preparation, versatility, and the art of adding the right ingredients to complement their nutty flavors and chewy textures.

A staple of North Africa, couscous is made with durum wheat, precooked and dried. These tiny pellets of pasta make a great substitute for rice or noodles. Because it is precooked, couscous can be boiled in water or broth in only 10 minutes, fluffed, and served with sauces, stews, stir-fries or salads. One half cup of cooked couscous is only 88 calories, containing a healthy 3 grams of protein and zero fat. Both whole grain and enriched couscous can be found in grocery stores.

A form of precooked wheat, bulgur is white or red, hard or soft wheat kernels that have been par-cooked after 5% of the bran is removed. They are hulled and cracked into tiny bits. Many early civilizations, including the Romans, Arabs, Egyptians and Israelis, have eaten some form of cracked wheat since 1000 B.C.

Primarily used for tabbouleh, bulgur makes a nutty, flavorful pilaf and adds depth to breads, soups, meatloaves, and chilies. Let it soak in hot water for 45 minutes or simmer for 10 minutes then leave covered to steam. One half cup of cooked bulgur is only 71 calories, 3 grams of protein and zero fat with a whopping 4 grams of fiber.

Bulgur and couscous are quick-cooking wheat grains. Both can be served hot or cold for breakfast with fruit or scrambled with eggs. Combined with vegetables or a protein, they can serve as the main dish. These grains are delicious tossed in a salad or served with fruit and honey as a healthy dessert. Bulgur and couscous store in airtight containers in cool, dry places, and bulgur freezes indefinitely.

Wheat berries, tan to reddish brown in color, consist of the entire wheat kernel. They can be ground into flour or successfully substituted for rice. A slower cooking grain, they are easily boiled for 30-70 minutes. Soaking reduces the cooking time, but it's not necessary. After draining, they can be stored in the refrigerator or frozen and easily heated in the microwave.

Wheat berries are the primary ingredient in an Eastern European Christmas porridge called kutya, and the French eat wheat berries as a side dish instead of rice or corn. Like bulgur and couscous, wheat berries can be served at all meals. Wheat berry salads and pilafs appear more and more often on menus at many restaurants, as well as on the family table. Whether prepared as a hot breakfast cereal with honey and cinnamon, or added to baked goods for a crunchy texture, wheat berries are a healthful source of dietary fiber, folate, iron, potassium and protein.

Once limited to specialty food stores and markets, packaged bulgur, couscous and wheat berries are now widely available in supermarkets. Home cooks are finding these tasty wheat grains simple to prepare with satisfying results for their everyday meals. The Wheat Foods Council has long featured these grains in many delicious recipes, so expand your whole wheat food horizons and try these hearty dishes:



Toasted Corn and Bulgur Salad

Multi-Grain Pilaf



Black Bean Bulgur

Couscous and Shrimp Kabobs



Cinnamon Apple Couscous

Southwestern Couscous



Tortilla Wheat Berry Bake

# Uncommon Wheat Grains Make Nutritious, Delicious Meals

During these cold winter days, satisfy cravings for comfort food while keeping your resolutions to stay fit and eat healthy. These Wheat Foods Council recipes highlight less familiar whole wheat grains like bulgur, couscous and wheat berries, which are easy to prepare, packed with fiber and essential nutrients, and absolutely delicious.

## Tortilla Wheat Berry Bake

### Ingredient List

6, 10" whole wheat flour or enriched flour tortillas (any flavor)  
1 lb extra lean ground beef  
1 cup cooked wheat berries (can be found on some supermarket salad bars or you can cook your own)  
1, 15-ounce can black beans, drained and rinsed  
1 ½ cups frozen corn  
1 ½ cups enchilada sauce  
2 tablespoons chopped fresh cilantro – optional  
2 cups grated cheddar or Monterey Jack cheese

### Toppings (optional):

Sour cream  
Avocado or guacamole  
Salsa  
Chopped scallions

### Directions

Preheat oven to 350 degrees F.  
Lightly coat the inside of a 9x13-inch baking dish with cooking spray.

In a large skillet, brown the ground beef over medium-high heat. Drain. Stir in the wheat berries, black beans, corn, enchilada sauce and cilantro. Spread ½ cup of this mixture across the bottom of the baking dish. Cover with 2 tortillas. Top with 1/3 of the remaining wheat berry mix, 1/3 of the cheese and 2 more tortillas. Top with ½ the remaining wheat berry mix and ½ the remaining cheese. Cover with the last 2 tortillas and the last of the wheat berry mix. Sprinkle with the remaining cheese.

Bake 30 minutes, until bubbling around the edges and very hot throughout. Cut into rectangles and serve hot, with desired toppings.

Serves 6

Approximate nutritional value per serving:  
520 calories; 17 g total fat; 6 g saturated fat; 60 mg cholesterol; 1330 mg sodium;  
55 g carbohydrates; 10 g dietary fiber; 36 g protein; 4.6 mcg DFE (folate).



## Chicken Bulgur Casserole

### Ingredient List

2 cups cooked chicken, chunked  
2 cups reconstituted bulgur wheat \*  
1 1/2 cups chopped celery  
1, 4 ounce can sliced mushrooms, drained  
1, 8 ounce can sliced water chestnuts, drained  
1/4 cup sliced almonds  
3/4 cup low-fat mayonnaise  
1, 10 1/2 ounce can low-fat condensed cream of chicken soup  
1 tablespoon grated onion  
1 tablespoon lemon juice  
1/4 teaspoon salt  
Dash of pepper

### Topping:

1 cup croutons, crushed  
Paprika

### Directions

Preheat oven to 350°F.

\*To reconstitute bulgur wheat, add 1 cup dry bulgur to 1 3/4 cups boiling water. Stir, cover, reduce to low and let simmer for 20 minutes. Let stand covered 5 to 10 minutes before using. Or, instead of cooking, add bulgur to boiling water and let stand covered for at least 30 minutes.

Combine all ingredients. Place in 8 x 11-inch baking dish sprayed with vegetable spray. Top with crushed croutons, sprinkle with paprika and bake for 1 hour.

Servings: 8

Nutrition: Each serving provides approximately: 219 calories, 14 g protein, 26 g carbohydrates, 7 g fat (1 g saturated), 5 g fiber, 30 mg cholesterol, 24 mcg folate, 9 mg iron, 716 mg sodium.



## Breakfast Couscous

### Ingredient List

2 cups hot 1% or fat-free milk  
1 cup couscous  
1 cup raisins, soaked in water and drained  
Honey to taste

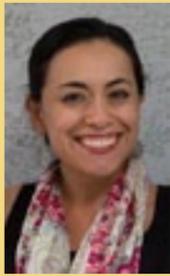
### Directions

Add couscous to hot milk and let stand 5 minutes.  
Stir in raisins and honey to taste.

Servings: 8

Nutrition: One serving prepared with fat free milk and 1 tablespoon honey provides approximately:  
193 calories, 6 g protein, 44 g carbohydrates, 2 g fiber,  
0 g fat, 1 mg cholesterol, 4 mcg folate, 1 g iron, 34 mg sodium.





# La Cocina de Christy

*Introducing a column by a Latina dietitian who keeps things real in the kitchen.*

By Christy Wilson, RD, LDN

Welcome to my little slice of the Wheat Foods Council world! I am Christy and this is my new column, La Cocina de Christy, where I'll be sharing fun facts and information about food and nutrition. La cocina is the Spanish term for "the kitchen," and I cannot think of a better place to talk about foods and share recipes and stories than inside my cocina!

As a mom, a wife and a Registered Dietitian who loves to cook (and eat!) nutritious and delicious foods, my brain is most stimulated in my kitchen. I love taking traditional Mexican recipes from my small border town home in Southern Arizona and creating healthy meals that appeal to the eye and the soul. Although mainstream Mexican foods are often prepared with lots of fat, traditional Sonoran Mexican dishes call for slow cooked foods like pinto beans and handmade corn and flour tortillas—one of my favorite foods!

Often viewed as "unhealthy" by the calorie-conscious, tortillas can range in calories from 40 calories to 140 each, which is similar to most varieties of bread. As a staple in all styles of Mexican cuisine, tortillas have important minerals like potassium and magnesium (essential for healthy heart function), iron (essential for blood production), and folic acid—a vitamin (B9) that is often lacking in the diets of many Hispanic women of child-bearing age, according to the Center for Disease Control and Prevention (CDC). Having a young daughter, it's good to know that I can help her prevent a possible deficiency in her future by simply offering a variety of foods at home, including foods I grew up eating.

At heart, I feel I am a teacher. I enjoy teaching people how to make healthy food choices in a food-environment that can be confusing. I like showing folks that small changes, like adding extra vegetables into soups (caldos) and using whole grain tortillas for quesadillas and whole wheat pasta for noodle dishes (sopas), can seamlessly boost the nutritional quality of family meals. If I've managed to accomplish this in my home with minimal quizzical "looks" from my husband and kids, I know others can, too!

Here is a quick and classic recipe from my kitchen to yours using whole grain wide noodles and lots of vegetables. At home, we call this caldo de pollo or chicken noodle soup. It's a delicious way to apply the principles of our US Department of Agriculture's (USDA) MyPlate concept into a one-pot meal. Hope you enjoy it as much as we do!

## Chicken Noodle Soup (Caldo de Pollo)

Recipe by Christy Wilson

Prep time: 15 minutes  
Cooking time 25 minutes



### Ingredients

- 2 teaspoons extra virgin olive oil
- 4 carrots, sliced
- 3 stalks celery, sliced
- 1 cup onion, diced
- 2 cloves garlic, diced and mashed with knife
- 2 cups mushrooms, chopped
- 6 cups (1 ½, 32 ounce boxes or cans) of low sodium chicken stock or broth
- 2 cups water
- 3 cups cooked chicken, shredded or roughly chopped
- 1 cup dry whole wheat "wide" noodles (like egg noodles)
- ¼ teaspoon season salt
- ½ teaspoon garlic powder
- ½ teaspoon onion powder
- ½ teaspoon whole dried oregano, smashed in palm of your hand
- ¼ teaspoon ground cumin
- ½ teaspoon ground pepper

### Directions

1. Heat oil in a large soup pot. Add carrots, celery and onion and sauté for a few minutes then add chopped mushrooms and garlic to vegetable mixture. Stir to combine. Cook for about a minute to allow flavors to blend.
2. Add broth and water to the pot then turn heat to high. When broth begins to simmer, stir in chicken and pasta then lower heat to medium low. Cover pot and allow soup to simmer for about 8 minutes, or until noodles are tender. Stir in season salt, garlic and onion powders, oregano, cumin and pepper. Adjust seasonings to taste.
3. Ladle soup into bowls and serve.

Makes 8 servings  
Approximate nutritional value per serving:  
243 calories; 19 g protein; 35 g carbohydrates; 3 g fiber; 3 g fat (.5 g saturated fat); 45 mg cholesterol; 2.8 mcg folate; 1.4 g iron; 520 mg sodium.

## Olympic Wheat Foods

With the Russian city of Sochi hosting the 2014 Winter Olympics, we thought it would be fun to highlight a few wheat foods you could try there.\*



\* Or if you're not going there, try them here!

The Sochi Bread-Baking Complex will offer residents and visitors of the Olympic city fresh bread, pastries, gingerbread and bagels in packaging bearing the Sochi 2014 symbol. In the near future, gingerbread and sushki will be sold in the same packaging. Here are three wheat foods you can find there.

### Khinkali

Khinkali are dumplings from Georgia. They are similar to the Russian pelmeni, Italian ravioli, and Japanese gyoza. The principle is the same -- a thin piece of dough wrapped around a stuffing and boiled in salted broth. Khinkali are filled with minced beef, pepper, salt, and finely chopped green coriander. They are larger than pelmeni and are also different in that almost half of the stuffing is a strong, rich broth. Khinkali are served with tomato sauce and Tsakhton sauce (a white sauce based on sour cream, herbs, and garlic).



### Khachapuri

Khachapuri is a traditional Georgian dish of cheese-filled bread. The bread can be shaped in various ways. If you find yourself in Sochi, you certainly need to try the boat-shaped khachapuri! This traditional form is filled with butter, a raw egg, and cheese. It is considered a success if the chef bakes the khachapuri so that the yolk is still runny at the end. The boat khachapuri should be eaten with your hands, pinching off the corners and dipping them in the cheese-oil-egg filling.

### Blini (Russian crepes)

Another traditional Russian dish is blini. They are usually prepared in large quantities on Shrove Tuesday -- the favorite national holiday after New Year's Eve. Blini in Russia usually accompany winter and welcome the spring. This year Shrove Tuesday will be on February 24, which is just after the Olympic Games. But most likely, you will be offered blini much earlier. Pancakes not eaten plain. Try them with red or black caviar, or salted salmon, meat, cheese, honey, jam, cream ... You can try different toppings every day. They are all good.



# Wheat, Gluten and Health:

## The Science Behind Gut Health and Food Intolerances

### Check Out Our Latest WFC Educational Resource

Make sure to visit the Wheat Foods Council website at [www.wheatfoods.org](http://www.wheatfoods.org) to check out our latest educational offering: a self-study module entitled, "Wheat, Gluten and Health: The Science Behind Gut Health and Food Intolerances."

#### Module Description:

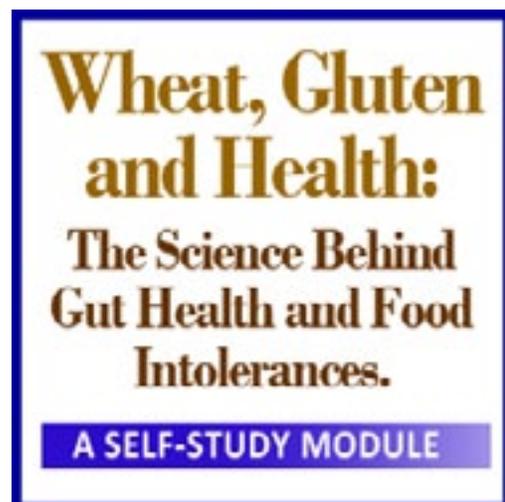
Gluten sensitivity and celiac disease have been increasing in prevalence over the past 20 years. Numerous celebrities, talk show hosts, athletes and authors have touted the benefits of a gluten-free diet for the non-Celiac population.

Julie Miller Jones presents the science, incidence and mechanism behind food intolerances, gluten sensitivity, and celiac disease. She explains the etiology of poor gut health, the role of the microbiome, and the mechanisms by which poor gut health can lead to food intolerances and sensitivities. She also examines the claims that a gluten-free diet is healthful for everyone, especially those who are not gluten sensitive or who do not have celiac disease.

#### Self-Study Module Objectives:

After reviewing this presentation and its accompanying handouts, dietitians will be able to:

- Describe adverse reactions to food, and especially to wheat and gluten
- State myths and facts with respect to wheat, gluten and health in normal individuals and those who must eliminate gluten from the diet
- Discuss the role of gut microflora and gut dysbiosis in health and disease
- Provide useful tips for those with gluten sensitivities, allergies, celiac disease and other digestive disorders
- Summarize the role of a healthy gut and gut microbiome in health and wellness.



This self-study module has been approved by the Commission on Dietetic Registration for 1 hour of level 2 continuing professional education units (CPEUs)

## January - National Birth Defects Prevention Month

Folic acid, a B vitamin, is a big deal and National Birth Defects Prevention Month is a good time to ask, "if you are a woman of child-bearing age, are you getting enough?" Not only can folic acid and folate-containing foods help prevent birth defects but they may also help protect against heart disease, and colon, cervical and breast cancers. By far, the most dramatic impact of folic



acid can be seen in the rate of infants born with neural tube birth defects (NTDs) – a 36% reduction since 1998.

Beginning in 1998, all enriched flour products were fortified with folic acid, making it much more widely available. Folic acid is the dietary supplement form of folate that is added when foods are fortified. Folate

occurs naturally in foods like leafy greens (collards, spinach, and kale) and in fruits and juices, but enriched grains provide over 60% in the American diet. It has been estimated that fortification with folic acid results in approximately 1,000 additional healthy babies born each year without NTDs. The Centers for Disease Control and Prevention (CDC) declared folic

acid fortification of enriched grains as one of the top ten health initiatives in the first decade of this century.

**Bottom Line: If you are a woman and may become pregnant, make sure you are meeting your folic acid needs with foods and a dietary supplement if needed.**

More information: <http://www.wheatfoods.org/sites/default/files/attachments/grainsoftruthfolicacid.pdf>