



Kernels

Winter 2013



A Whole New Start
With Grains



Gluten and Health



Take a Tour



Plus
Great Recipes
A Movie Quiz
and more...



Wheat Foods Council
WheatFoods.org



A word from Judi Adams

There is always something invigorating about starting a new year and looking ahead. At the same time, as the saying goes, "past is prologue," so there is much to learn from looking back. With that in mind, in this issue of *Kernels*, I invite you to join me in taking a minute to look back at the history of the Wheat Foods Council (WFC). Last year was an important year for us since it marked our 40th anniversary. We are proud of this achievement because of the legacy we have developed over these four decades – a legacy of a strong, unshakable organizational commitment to sound nutrition science.

To give you a short history lesson, the Wheat Foods Council was formed in 1972 when wheat flour consumption slumped to an all-time low. Five of the largest wheat producing states decided to form the Council as a promotional arm. At the beginning, there was no formal staff; home economists from each wheat state joined together to produce news releases, food photography, and educational handouts so all states were communicating the same messages. Today, we are proud to say 20 producer member associations belong to the Council.

Underlying these promotional efforts was the philosophy that you couldn't promote the product unless you had science behind it. That same philosophy continues to this day and has resulted in the Wheat Foods Council having strong recognition and a reputation as the go-to resource on all things wheat in the nutrition community.

Since then, the WFC has grown to encompass a small, professional staff. We've worked hard implementing a number of educational campaigns, with our primary target always being the registered dietitians, extension family and consumer science specialists, consumer affairs professionals, and other nutrition influencers. A strong testament to the value and quality of our work came recently when a "Setting the Record Straight" toolkit we produced several years ago addressing fad diets popped up on a nutrition resources list serve! Good science-based resources are always in demand and we appreciate the opportunity to provide such resources.

I'm looking forward to working with all of you as the Wheat Foods Council begins its fifth decade of helping increase awareness of dietary grains as an essential component of a healthful diet through dissemination of science-based information.

Judi Adams, MS RD,
President, Wheat Foods Council

Welcome

A Whole New Start with Grains

By Victoria Shanta Retelny, RD, LDN

We've just been through the season for indulging in all our holiday favorites. Although the average weight gain is only about 1 to 2 pounds over the holidays, this extra weight can add up over the years. So, how to shed those excess pounds and start the New Year right? Add some nutrient-packed whole grains to your menu. Whole grains contain more than just complex carbs; they are packed with antioxidants, fiber, minerals and vitamins. They may also stave off extra pounds over time—the Harvard Nurses' Health Study revealed that women who ate whole wheat foods were 49 percent less likely to gain weight. Of course, being portion savvy during the holidays – and through-out the year – goes a long way toward weight maintenance.

As far as whole grains go, whole wheat wins the popularity contest with consumers as statistics show it's the most widely eaten grain in the general U.S. population for good reason. Whole wheat foods can assist your body in regulating blood sugar and insulin levels after a meal or snack, keep blood fats like triglycerides in check and may reduce body weight. Not to mention that wheat foods are prebiotics – meaning that they feed the gut with friendly bacteria (aka 'probiotics') and may boost immunity – a welcome disease defense during the cold, winter months.

Here are some whole grain culinary creations to start the New Year right:

- Whip up whole wheat couscous and add cranberries and walnuts.
- Blend whole wheat flour into your next baking project. Up to ½ of all-purpose flour can be replaced with whole wheat flour without needing to alter the other ingredients in most recipes.
- Sprinkle whole grain cereal flakes over string bean casserole, or on any other dish calling for a crisp topping.
- Enjoy bruschetta with whole grain artisan bread.
- Dish up bulgur tabbouleh salad.
- Try a new recipe featuring bulgur, wheat berries, spelt or other whole grains.

Enjoy this colorful whole grain recipe:

Simple Veggie Chow Mein

This is a tasty way to incorporate colorful crunchiness and whole grains into a meal. Add whatever vegetables you like or tofu, salmon or chicken breast.

Yield: 2 servings

Serving size: 1 cup

Prep time: 10 minutes

Cook time: 20 minutes

Ingredients:

- 1/4 lb. whole grain linguini
- 1/4 cup soy low-sodium sauce
- 1/4 cup lemon juice
- 1 Tablespoon rice wine vinegar
- 1 Tablespoon agave nectar
- 2 1/2 Tablespoons sesame oil, divided
- 1/4 cup canola oil, divided
- 1 garlic clove, peeled and crushed
- 1 cup shiitake mushrooms
- 1 cup sugar snap peas
- 1/2 small red pepper, cut into thin strips
- 4 green onions or scallions, finely sliced
- 1 cup zucchini, sliced

Directions:

1. Cook noodles in lightly salted boiling water, following the cooking instructions on the package (about 10 minutes). Once cooked, drain them and set them aside.
 2. Meanwhile, whisk together soy sauce, lemon juice, rice wine vinegar, agave nectar, and 1 Tablespoon sesame oil, and canola oil. Set aside.
 3. Heat 1 1/2 Tablespoons of sesame oil in a wok or large skillet. Add garlic and stir-fry for a few seconds. Add shiitake mushrooms, sugar snap peas, and red pepper; saute for 4 to 5 minutes, stirring occasionally. Add green onions and zucchini and continue to cook for a few minutes, stirring occasionally.
 4. Add noodles to the pan with vegetables and stir in marinade. Cook for 1 to 2 minutes, or until noodles are heated completely. Serve immediately.
- Each serving has: 557 calories; 6 g protein; 34 g carbohydrates; 6 g fiber; 13 g sugars; 46 g total fat (4 g saturated); 0 mg cholesterol; 82 mg sodium; 14 percent iron

Recipe courtesy of *The Essential Guide to Healthy Healing Foods* (Alpha Books/Penguin) by Victoria Shanta Retelny, RD, LDN.

Gluten and Health:

The Connection Between Gut Health, Food Sensitivities and Allergies

Michele Tuttle, MPH, RD

Recently, wheat and the proteins it contains especially gluten, have received intense attention from the media and consumers. There are several reasons for this. First, the incidence of celiac disease and awareness of it are increasing (as are all autoimmune diseases). Second, non-celiac gluten sensitivity (NCGS) has been newly identified as a concern affecting a small percentage of people. Third, a rise in the incidence of asthma and all allergies, including those to wheat, has been suggested. The reasons for the changes in incidence are not clear, but they have become the subject of much research and many theories. It appears that a complex interaction of genetic, gastrointestinal, environmental and dietary issues may be contributing to the observed increases. Outlined below are some of the key factors involved with reactions to wheat, gluten and other wheat proteins, and the potential health effects that might result.

Good Digestion, Gut Health, and Food Allergies

- Good digestion or gut health is the ability to eat and break down food with no discomfort at any point in the process from chewing and swallowing all the way through elimination (e.g., bowel movement). Food intolerances, sensitivities and allergies can cause or be symptoms of faulty digestive health. Symptoms may include stomach ulcers, heartburn (reflux), bloating, diarrhea, excessive gas, cramping or other intestinal pain, and constipation. Left unresolved, some of these conditions can lead to bacterial overgrowth in the gut, chronic inflammation, gastric or intestinal damage and, in the case of allergy, even death due to anaphylactic shock.
- While more than 20% of people report having food allergies, the actual prevalence is estimated to be 3-4%.



Impaired Protein Digestion, Antacids and Food Allergies

- When the gut is working properly, proteins (from all foods including those in wheat), are broken down from large molecules into much smaller pieces, called peptides, by the stomach's extremely acidic hydrochloric acid. Stomach acid is reduced by treatment with antacid medications for ulcers or heartburn (reflux), but can also decrease due to advancing age or illness. When stomach acid is not strong enough, proteins are not digested properly and large proteins or peptides can move from the stomach into the small intestine.
- These proteins and peptides have the potential of interacting with some of the immune-sensitive tissues lining the gut or slipping across gut tissues and initiating reactions in a sensitive person resulting in allergic or autoimmune response.
- Proper stomach pH is not only required for protein digestion, but also helps prevent the risk of intestinal infections and bacterial over-growth. Antacids have been linked to bacterial overgrowth along the gastrointestinal (GI) tract. This can cause a condition known as a 'leaky gut.' Thus, pieces of intact proteins can enter the bloodstream through the 'leaky gut' enabling them to trigger an anti-

gen-antibody response.

- There are many types of bacteria living in the intestines and friendly bacteria can be very helpful for digestion, nutrient absorption and overall health. However, if the balance between friendly and food-borne or other problematic bacteria is upset, digestive disturbances can occur. This can result in discomfort or illness that ranges from mild to extreme. The imbalance may also set up conditions that weaken the intestinal barrier allowing proteins and other compounds to enter the body, setting the stage for allergies, autoimmune disorders, and inflammatory disease.

Gluten-Free: Cure-All or Band Aid?

- There are currently three recognized categories of gluten-related disorders: celiac disease, wheat allergy, and NCGS. Celiac disease, is an autoimmune disorder that occurs in certain genetically susceptible people. It is characterized by changes in the intestinal wall, which can impair the absorption of all nutrients. It can cause GI disturbances and affect many systems in the body. It affects around 1 percent of people in the U.S. Wheat allergy, an allergic response to proteins in wheat, can affect the skin, gastrointestinal or respiratory tract. It affects well under 1% of people in the U.S. NCGS, which is thought not to be either an allergy or an autoimmune disease, does not have a documented incidence but may affect as many as 4- 6% of people with symptoms that include abdominal pain, eczema or rash, headache, foggy mind, and fatigue. It does not damage the intestine, however.
- A gluten-free diet is essential for those who have true wheat allergies, NCGS or celiac disease; however, it is not clear whether those who are gluten-sensitive may be able to tolerate some gluten.
- For people with NCGS, the true issue may be one of gut "leakiness." Many factors, including gliadin (one of the gluten proteins), have been implicated in increasing gut "leakiness." However, bacterial overgrowth of certain gut microflora, food components such as spices, and even stress, have also been shown to affect gut leakiness.
- If the gut becomes inflamed from bacterial overgrowth or food sensitivities, it must be allowed to heal using dietary and pharmacologic measures (e.g., antibiotics, probiotics) and lifestyle factors

(stress reduction, exercise) to help restore the gut microflora and stop the inflammatory process. The major strategy for those with celiac disease is to make certain that a gluten-free diet is strictly followed. In some individuals, it may take quite some time for the inflammatory condition to subside and the gut to heal. Even the slightest dietary 'slip' (e.g. accidental ingestion of gluten) may slow gut healing. For those with bacterial overgrowth, probiotics to improve bacterial balance or removal of other dietary components such as lactose may be helpful. It is not known whether those with gluten sensitivity can reintroduce gluten once the bacterial overgrowth is resolved and the gut is healed.

Food intolerances, sensitivities and allergies can reduce quality of life and may even pose serious health risks. If you suspect you have any of these conditions, please work with your healthcare provider and registered dietitian who can accurately diagnose, treat and manage these conditions.

For more information on gluten and other topics, check out these resources on the [Wheat Foods Council website](#)

Gluten and Health: The Connection Between Gut Health, Food Sensitivities and Allergies

This article has two versions: one for registered dietitians and other nutrition professionals which includes references, and one (published here) to be used with clients and consumers. This link takes you to the version for professionals.

Gluten in the Diet

Grains of Truth: Wheat Facts

Grains of Truth: Ancient Wheat and Pseudo Grains

Grains of Truth: Whole Grain and Enriched Products

Elegant Entertaining

Torta Rustica With Roasted Pepper and Smoked Mozzarella

Serves 18 as an appetizer (8 as an entrée)

Ingredients

½ (17.3-ounce) box puff pastry (1 sheet)
8 ounces smoked part-skim mozzarella, grated
1 cup part-skim ricotta cheese
¼ cup grated Parmesan cheese
¼ cup prepared pesto
¾ cup fine, dry breadcrumbs
1 (13.75-ounce) jar artichoke hearts, drained, dried on paper towels, and quartered
14 ounces prepared caponata
1 (12-ounce) jar roasted peppers, drained, dried on paper towels and sliced
1 egg, beaten
2 teaspoons sesame seeds



Directions

Preheat oven to 400 degrees F.

Cover a sheet pan with parchment paper. On a lightly floured surface, roll out the sheet of puff pastry to a 14-inch square. Lay it on the parchment paper.

In a medium bowl, blend together the mozzarella, ricotta and Parmesan cheeses.

Brush the center square of the pastry with pesto, leaving a 3-inch border. Sprinkle with ¼ cup breadcrumbs. Sprinkle with artichoke hearts. Spoon on half the mozzarella mix in dollops. Spoon on the caponata and sprinkle with ¼ cup breadcrumbs. Lay the roasted peppers on top and then spoon on the remaining cheese mixture. Sprinkle with the last ¼ cup breadcrumbs.

Pull up the sides and corners of the puff pastry to cover the filling. Pinch the seams together to seal them. Pat the torta into a nice square block. Brush the torta all over with egg and sprinkle with sesame seeds.

Bake 35-40 minutes, until very brown and beginning to ooze cheese.

Let sit 10 minutes before slicing.

Approximate nutritional value per appetizer:

206 calories; 10 g total fat; 2.6 g saturated fat; 18 mg cholesterol; 816 mg sodium; 18 g carbohydrate; 3.5 g fiber; 11 g protein; 9 mcg DFE (folate).

Cinnamon-Pear Trifle

Serves 16



Ingredients

10 cups cubed pre-baked cinnamon rolls, (2 (10-ounce) packages)
1 cup prepared caramel sauce
¼ cup dark rum, optional
1 orange, washed, zest grated and juice squeezed (approximately 2 ounces of juice and 1 tablespoon zest)
3 (15-ounce) cans pear slices, drained and diced
3 cups prepared vanilla pudding (1 (5.1-ounce) box instant vanilla pudding and pie filling, prepared with 3 cups 1% milk)
1 cup heavy cream, whipped till firm
¼ cup toasted sliced almonds

Directions

Into a trifle bowl, or medium glass bowl, put 2 1/2 cups cinnamon roll cubes.

In a medium bowl, blend together the caramel sauce, rum (if using), orange zest and juice.

Drizzle the cinnamon roll cubes with 1/3 of the caramel sauce. Top with 1/3 of the pears and 1 cup vanilla pudding. Continue to layer in the same manner until you have used all the cubes, sauce, pears and pudding.

Cover and refrigerate at least 2 hours and up to 24 hours.

Spoon the whipped cream over the top of the trifle, or put it in a pastry bag with a large star tip and pipe it onto the trifle. Sprinkle with almonds and serve.

Approximate nutritional value per serving;

290 calories; 9 g total fat; 3.5 g saturated fat; 20 mg cholesterol; 260 mg sodium; 49 g carbohydrates; 2 g dietary fiber; 4 g protein; 7.5 mcg DFE (folate).

Take a Tour of America's Wheat Fields

Americans consume 53 pounds of bread, 85 billion tortillas, 20 pounds of pasta, and sell 3 billion pizzas in an average year. Three-quarters of all U.S. grain products are made from wheat flour. Have you ever wondered where all that wheat is produced in this country? Let's take a tour of those places across America that produce the golden wheat used to make these delicious and healthy foods. Wheat is grown in 42 of the 50 states in the United States, but the Midwest is typically known as the "bread basket" because of its flat land and fertile soil. The top three wheat producers have consistently been Kansas, North Dakota and Montana.

Montana's golden wheat fields produce about 150 million bushels of wheat annually. The first wheat in the state was planted at St. Mary's Mission in Montana's Bitterroot Valley in 1841. The "Golden Triangle" is an area of seven counties that grow about 45 percent of Montana's wheat crop each year.

The first wheat crop in the northwestern part of the U.S. was planted in Ft. Vancouver, WA, in 1825. Most of Washington's wheat is grown in 15 counties with Whitman County producing the most since 1978.

Eighty-five percent of Oregon wheat is exported using the Port of Portland, making it the number one export in the state.

California's southwestern climate produces wheat low in moisture and high in kernel weight and size suitable for milling bread flour. California is home to ten wheat flour mills comprising the largest capacity for wheat flour milling in the U.S., an average of 112,500 cwts per day in 2012.

Most wheat grown in Wyoming is dry land, using irrigation systems. The Wheatland, WY, irrigation district is the largest privately-owned irrigation system in the country.

During the 1859 Gold Rush, miners used Wheat Ridge, Colorado, as a rest stop on their journey. Travelers to the area admired the golden ridges of wheat, which is how the town got its name. The state itself is sometimes referred to as "Prairie Gold." Forty of its sixty-four counties grow wheat, and more than 80 percent of Colorado wheat is exported.

Texas wheat was first grown commercially in 1833 near Sherman. Last year, Texas farmers harvested about 103.9 million bushels, an average of 31 bushels per acre. Both Texas and Oklahoma specialize in producing hard red winter because of their climate. Wheat is the number one crop grown in Oklahoma.

North Dakota, referred to as "the breadbasket of the world," ranks first for production of spring wheat and durum wheat and annually produces enough to make 13.5 billion loaves of bread and 6.3 billion servings of spaghetti. The North Dakota Mill and Elevator is the only state-owned flour mill in the U.S.

South Dakota farmers plant 3 million acres of wheat per year producing hard red winter, hard red spring, and durum.

From 1880 to 1930 Minneapolis, MN, was considered the "Flour Milling Capital of the World." This success spurred larger wheat farms, and it was said that "a farmer could ride his horse all day and not reach the end of his wheat field. Minneapolis celebrated the industry by naming its first professional baseball team the "Minneapolis Millers." In 2003, the Mill City Museum opened to tell the story of the flour milling boom.

Nebraska farmers produce over 74 million bushels of wheat annually, about 4,440 pounds. On the 4th Saturday in March, Nebraska Wheat Growers join other wheat organizations across America to celebrate "Bake and Take Day," a 40-year-old tradition where people bake a special wheat food to take and share with family, friends or others in need.

Kansas, "the wheat state." Kansas farmers grew 382 million bushels of wheat last year. One bushel of wheat weighs approximately 60 pounds and yields about 90 one-pound loaves of whole wheat bread. Kansas farmers produce enough wheat each year to fill a train stretching from west Kansas to the Atlantic Ocean and bake over 36 billion loaves of tasty bread. The National Festival of Breads is hosted this June in Manhattan, KS, also home to a 30-foot statue of Johnny Kaw, a storybook pioneer character erected to honor the Kansas wheat farmer.

Wheat farming spread to Maryland and Virginia during the mid-eighteenth century. George Washington chose to grow wheat as his cash crop at Mt. Vernon. Washington's wheat was successful, and in 1770, he renovated an old gristmill to capitalize on the demanding market for grain and flour.

North Carolina grows winter wheat which is suitable for "double cropping," planting two crops on the same acreage. Double cropping has grown in importance, so North Carolina farmers increased wheat acreage harvested for grain.

Other states that produce wheat include: Alabama, Arizona, Arkansas, Delaware, Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kentucky, Louisiana, Michigan, Mississippi, Missouri, Nevada, New Jersey, New Mexico, New York, Ohio, Pennsylvania, South Carolina, Tennessee, Utah, West Virginia, and Wisconsin.



Wheat's Up

The Wheat Foods Council is taking aim at misinformation about dieting and health:

On January 3, we launched the New Year with a "Busting Fad Diets" satellite media tour featuring noted carbohydrate expert and nutrition educator Julie Miller Jones, Distinguished Scholar and Professor Emerita of nutrition in the Department of Family, Consumer and Nutritional Sciences at St. Catherine University in St. Paul, MN. Dr. Jones was interviewed by major broadcast and radio outlets across the country, educating consumers about not only how to identify fad diets, but also giving them the real "skinny" on losing weight the right way and keeping it off.



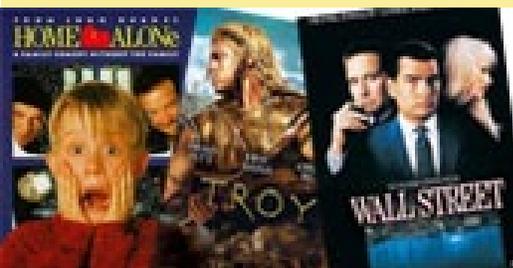
Hear Julie Miller Jones Debunking Diet Myths. And here she is explaining How to Spot a Fad Diet.

In November 2012, just in time for the holidays, we released our "Busting Fad Diets" toolkit filled with lots of great weight management resources including sample blog posts, newsletter articles, Tweets about healthful diets, recipes and more. While targeted to supermarket dietitians, the information contained in the kit has lots of tips and pointers that can be incorporated by other dietitians and nutrition professionals in their practices, as well as background and guidelines for consumers looking to manage their weight and eat more healthfully. To access the kit materials online, [simply click here](#).



Make Time for Breakfast.

February is National Hot Breakfast Month, another opportunity to use the Wheat Foods Council "Back to Breakfast" toolkit. Packed with information about why eating breakfast is important, as well as delicious ways to make a healthy breakfast fast and convenient, the kit is [available online here](#).



Just For Fun

Match the movie with the quote

- | | |
|------------------------|--|
| 1. Alice in Wonderland | a. Men rise and fall like the winter wheat... |
| 2. Caddyshack | b. It's called pasta now. Spaghetti's out-of-date. |
| 3. Troy | c. Ah! A loaf of bread is what we chiefly need. |
| 4. Home Alone | d. "...and a doughnut with no hole is a Danish." |
| 5. Wall Street | e. Is this a loaf of the famous San Francisco sourdough bread? |