SEITAN--THE VEGETARIAN WHEAT MEAT

By Jill Nussinow, M.S., R.D.

I get blank stares when I ask my vegetarian cooking students if they’ve ever eaten seitan (say-tahn). Yet, hands go up when I ask if anybody has ever eaten mock chicken, beef, or pork in a Chinese vegetarian restaurant. The name is foreign but you may be more familiar with the product than you think.

According to Barbara and Leonard Jacobs in their excellent book Cooking with Seitan, The Complete Vegetarian "Wheat-Meat" Cookbook, "seitan has been a staple food among vegetarian monks of China, Russian wheat farmers, peasants of Southeast Asia, and Mormons. People who had traditionally eaten wheat had also discovered a method to extract the gluten and create a seitan-like product."

Seitan is derived from the protein portion of wheat. It stands in for meat in many recipes and works so well that a number of vegetarians avoid it because the texture is too "meaty."

Gluten can be flavored in a variety of ways. When simmered in a traditional broth of soy sauce or tamari, ginger, garlic, and kombu (seaweed), it is called seitan. I refer to all flavored gluten as seitan. Making gluten the traditional way is time consuming. It calls for mixing 8 cups of flour with 3 to 5 cups of water and forming a dough. The dough is then kneaded and rinsed under running water to remove the wheat starch. After about 20 to 30 minutes of kneading and rinsing, which to me seems like a considerable amount of time, the resulting 2 or so cups of stretchy gluten is evident. At that point the gluten needs to be simmered in broth for at least 1 hour and up to 2 hours or more.

Luckily there are some shortcut methods for making gluten (see recipe) that make it a convenient food to prepare. I have had the most luck using high gluten flour or vital wheat gluten, although I have found that until you become familiar with the texture you are aiming for during the mixing and kneading process, the results will vary somewhat.

The added benefit of using this method is that you can flavor the gluten during the kneading process by adding herbs and spices of your choosing other than the traditional ginger and garlic. You can use poultry seasoning or chicken flavor broth powder to make a "chicken" flavored seitan, or a blend with paprika, cayenne, fennel, garlic, and Italian seasoning for a "sausage" flavor. Flavoring is limited only by your imagination.

For some, a safer first step is to purchase one of the commercially available mixes. Arrowhead Mills’ Seitan Quick Mix or any of the Knox Mountain products, which include Wheat Balls, Chicken Wheat, and Not-So- Sausage, yield a tasty product. Just be sure to follow the box directions exactly.
Gluten containing more water or which has been kneaded less tends to get puffy instead of being dense. Some people prefer the less dense result. I like gluten to be quite firm, as it substitutes more easily for animal foods in recipes.

Commercially prepared seitan is produced by White Wave and Lightlife Foods as well as regional manufacturers. You will find it in tubs or vacuum packs soaking in marinade in either the refrigerator or the freezer section of many natural food stores. You may also find frozen or fresh gluten in Asian markets by the name Mi-Tan.

Other ready-to-eat forms on the market include Ivy Foods’ burgers, sausage-style and chicken-style Wheat of Meat Products, lunch-style "meats," fajita strips, and slices. (Ed. note: Ivy Foods products are now being manufactured by White Wave.) Gluten seems to be cropping up in more products these days and is often a key ingredient in "not-dogs." Once made, seitan can be stored in broth in the refrigerator for up to about a week. Individually-wrapped cutlets can be frozen for up to a month or more without a loss in texture or flavor. It is best to thaw them before using.

Seitan’s versatility lies in the myriad forms it assumes during the cooking process. I find simmering to be the most effective and efficient preparation method. But it can be oven-braised, baked, cooked in a pressure cooker, or deep fried. Each version yields a different texture. Oven braising produces a texture similar to the chewy texture derived from simmering. Baking produces a light texture that works well when grinding or grating seitan. Pressure cooking, according to the Jacobs, "will produce a softer-textured seitan." Fried gluten turns soft and slippery when cooked with a sauce and absorbs flavor well.

As gluten is a low sodium and extremely lowfat protein (containing around 10 mg. sodium, 0 g. fat, and 7.5 g. protein per ounce in its raw state), additional processing is what may add unhealthy attributes. Most of the commercially prepared seitan contains a considerable amount of sodium (up to 100 mg. per ounce). If you choose to deep-fry the gluten, the fat content will jump from virtually zero to the number of grams in whatever oil is absorbed (at 4.5 grams per teaspoon).

Making seitan and gluten will open up a new horizon for you in the world of vegetarian cooking. It is terrific in stir-fries and paired with noodles in Asian-style dishes, yet also works well in traditional American fare like stew. Try substituting it for animal products in former favorite recipes or those of non-vegetarian friends and relatives. Then get your creative juices flowing and experiment when making seitan by varying the flavorings and cooking methods.
Vegan Turkey Roast
Yield: 8 servings
Also makes great sandwiches!

1 gallon water
2 1/2 cups vital wheat gluten flour
1/2 cup nutritional yeast flakes
1 tsp thyme
1 tbsp onion powder
1 tsp salt
2 cups vegetable broth*
1/4 cup light olive oil
1 tbsp soy sauce**
Cheesecloth (one double thick 24-inch by 16-inch piece)
2 6-inch pieces of string
1 batch uncooked stuffing (optional)

*If using the homemade vegetable broth, you may need to add salt to this recipe.
**Substitute Bragg liquid aminos if desired.

1) In a large pot, bring 1 gallon of water to a low boil.
2) In a large bowl, whisk together the gluten, yeast flakes, thyme, onion powder, and salt.
3) Add the vegetable broth, oil, and soy sauce, stir just until combined.
4) Form into a loaf shape.
5) Place gluten loaf on cheesecloth and roll up (not too tight). Tie each end with a piece of string.
6) Place in simmering water, covered, for 1 hour*** (2 hours for a double batch).
7) Preheat oven to 325.
8) Take roast out of water and remove cheesecloth. Place in baking dish with prepared stuffing, if desired.
9) Bake, covered, for 30 minutes.

Options-
Liquid smoke for broth – 2 Tbspns
Pressure cook for 25-30 mins instead of boil
Equal sage and thyme
Poultry seasoning w/ thyme
Spicy Italian Cutlet Parmesan

This recipe is an offshoot of the “Spicy Italian Sausage” recipe from Everyday Dish. We just can’t seem to get enough of them! Naturally this has quickly become a favorite in our household. We love it topped with vegan Parmesan (homemade or store-bought) or vegan mozzarella, right before placing it under the broiler.
Serves 4

Sauce
1 15-oz can organic tomato sauce
1 14-15 oz can or box organic diced tomatoes
1 tbsp dried parsley flakes
1 tsp dried oregano
3 cloves garlic, pressed or finely minced

Breading
1/4 cup whole wheat or all-purpose flour
1/2 tsp granulated garlic
Pinch salt
Freshly ground pepper
1/4 cup plain soymilk
2 tbsp cornstarch
Panko breadcrumbs, plain
Vegan mozzarella or Parmesan cheese, optional
4 cutlets (Everyday Dish’s Spicy Italian Vegetarian Sausages)*

1. Sauce: In a large saucepan, combine the tomato sauce, diced tomatoes, parsley flakes, oregano and garlic. With a stick or hand blender, whiz all of the ingredients together. Alternately, you can blend everything in a blender or food processor and then pour into saucepan. Cook over medium heat while you prepare the cutlets.
2. Cutlets: On a large plate or pie dish, mix together the flour, garlic, salt and pepper. Set aside.
3. In a shallow bowl, whisk together the soymilk and cornstarch until smooth.
4. On a large plate or pie dish, add panko breadcrumbs.
5. Working with one cutlet at a time, lightly coat each side of cutlet with seasoned flour. Next, dip the cutlets into the soymilk mixture, coating cutlets on both sides. Finally, coat the cutlets with the panko breadcrumbs, making sure to coat both sides well. Repeat with remaining cutlets.
6. Place a large cast iron or other skillet over medium heat. Add a tablespoon or two of oil to skillet, tilting pan to spread oil in an even layer. Add cutlets and cook until lightly browned and crisp on the bottom. Flip cutlets over, cooking until lightly browned and crisp on the other side.
7. Pour hot tomato sauce on top of cutlets. Sprinkle vegan cheese on top of tomato sauce. Place skillet under broiler until cheese is golden (and melted if using Mozzarella) for several minutes. Watch carefully so that cheese doesn’t burn.
8. Remove skillet from oven and serve, sprinkling with additional cheese if desired.
*You can find the recipe for Spicy Italian Vegetarian Sausages at www.everydaydish.tv. Instead of shaping the seitan dough into sausages, shape the dough into patties and steam for 30 minutes. Refrigerate cooked and cooled patties overnight.

Tip: Recipe can be doubled as needed.

Comments:
“May 28, 2009 | I made these for dinner on Sunday for carnivore guests. Instead of the tomato sauce with "cheese", I did a mushroom/onion gravy. Awesome. Thanks, everyday Dish, thanks Julie. you made my belly very happy. The carnivores were happy as well.” —Darnelle

“February 7, 2009 | My family loves this dish, and has no idea that it's vegan. Now I can get my family to eat healthier without meat and dairy. Thank you ED!” —Karencooks

“October 2, 2008 | I made this last night for dinner and it was AWESOME! It was really easy to put together, and the taste was out of this world. This would be great for use as a "meatball" as well!”
**Susan V’s Barbecued Seitan Ribz**

You'll be amazed at how easy this recipe comes together using your favorite bottled sauce.

1 cup vital wheat gluten  
2 teaspoons smoked Spanish paprika  
2 tablespoons nutritional yeast  
2 teaspoons onion powder  
1 teaspoon garlic powder  
3/4 cup water  
2 tablespoons peanut butter, tahini or other nut butter  
1 teaspoon Liquid Smoke  
1 tablespoon soy sauce  
about 1 cup of your favorite barbecue sauce

Preheat the oven to 350 and lightly spray an 8x8-inch baking dish with canola oil. Mix the first 5 ingredients together in a large bowl. Mix the water with the nut butter, Liquid Smoke, and soy sauce and add it to the dry ingredients. Stir to mix well and then knead lightly in the bowl for a couple of minutes.

Put the dough into the baking dish and flatten it so that it evenly fills the pan. Take a sharp knife and cut it into 8 strips; then turn the pan and cut those strips in half to form 16 pieces.

Put it in the oven and bake for 25 minutes. While it's cooking prepare your grill pan or grill.

Remove it from the oven and carefully re-cut each strip, going over each cut to make sure that the ribz will pull apart easily later. Generously brush the top with barbecue sauce. Take it to the grill pan or grill and invert the whole baking dish onto the grill (or use a large spatula to lift the seitan out, placing it sauce-side down on the grill). Brush the top of the seitan with more sauce.

Watch it closely to make sure that it doesn't burn. When sufficiently brown on one side, turn over and cook the other side, adding more sauce, if necessary. When done, remove to a platter and cut or pull apart the individual ribs to serve.
Seitan Corned Beef

1 gallon water (to boil loaf)

Dry Ingredients
2 cups vital wheat gluten flour
2 Tbs. granulated onion
2 Tbs. paprika
2 Tbs. whole fennel seed (coarsely ground)
2 Tbs. whole caraway seed (coarsely ground)
1 Tbs. salt
1 tsp. ground cloves
1 tsp. ground black pepper

Wet Ingredients
1 cup vegetable broth
1/2 cup olive oil
2 Tbs. molasses
1 Tbs. vinegar
Cheese cloth (one double thick 24-inch by 16-inch piece)
2 - 6-inch pieces of string

Instructions

1) In a large pot, bring 1 gallon of water to a simmer.
2) In a large bowl, whisk together the gluten, onion powder, paprika, fennel, caraway, salt, cloves and black pepper.
3) In a separate bowl, whisk together the vegetable broth, oil, molasses, and vinegar.
4) Combine wet ingredients with the dry ingredients.
5) Form into a 5-inch by 8-inch loaf that will be about 1-inch thick.
6) Place corned beef loaf on cheese cloth and roll-up like a big flat rectangle tootsie roll (not too tight). Tie each end with a piece of string.
7) Place in simmering water, cover, and simmer for 1 hour and 15 minutes.
8) Take roast out of liquid and remove cheese cloth. Serve warm or place in refrigerator to make sandwiches with later.
Spicy Italian Vegetarian Sausages  
Makes 8 links

2 1/4 cups vital wheat gluten  
1/2 cup nutritional yeast flakes  
1/4 cup chickpea flour  
2 tbsp Bills Best Chik’Nish Seasoning (if using another brand which is salty, or saltier than Bill’s Best, you’ll want to greatly reduce the amount you use)  
2 tbsp granulated onion  
1 to 2 tbsp fennel seed, optional  
2 tsp coarsely ground pepper, preferably freshly ground  
2 tsp ground paprika  
1 tsp dried chili flakes, optional  
1 tsp ground smoked paprika  
1/2 tsp dried oregano  
1 tsp salt  
1/8 tsp ground allspice  
2 1/4 cups cool water*  
6 to 8 cloves garlic, minced or pressed  
2 tbsp olive oil  
2 tbsp soy sauce

1. In a large bowl, mix together all of the dry ingredients. Whisk together the water, garlic, olive oil and soy sauce and using a fork, gently stir into the dry ingredients. Stir just until ingredients are mixed. If dough mixture is too dry, you can add another tablespoon of water or as needed.

2. Scoop 1/2 cup dough mixture at a time and shape into logs. Place logs on piece of aluminum foil and roll up, twisting ends. Place sausages in steamer and steam for 30 minutes. Once sausages have cooled, remove from foil and refrigerate until ready to eat. After cooling, the sausages may feel a bit dry on the outside. Don’t worry, as they will soften and firm up considerably after chilling.

Variation: You can shape the dough into little patties instead of links. If you don’t want to use aluminum foil, you can wrap the links in damp muslin or tea towel and tie ends with cotton twine.
Seitan Stew
(Serves 4)

This is a more modern and gourmet version of a traditional stew, but oh, so much more tasty.

1 cup of water plus 1/2 cup water
1 ounce dried wild mushrooms such as morel, shiitake, or porcini
1 Tablespoon oil
1 large onion, chopped
2 carrots, diced
3 small turnips, peeled and cut in quarters
4-5 small potatoes, cut in half
1/2 pound mushrooms, halved
3 dried tomatoes, made into powder
8 ounces seitan, cut in small chunks
1 teaspoon dried rosemary
1 teaspoon dried thyme
1 teaspoon dried sage
1 Tablespoon miso
1 Tablespoon arrowroot plus additional if needed
2 Tablespoons fresh chopped parsley
Freshly ground black pepper to taste

Boil one cup of the water and soak the dried mushrooms (if they are morels or shiitake) for 30 minutes. Save soaking water. If using porcini add when recommended.

Heat oil in pan over medium heat. Add onion, carrot, turnips, and potatoes. Sauté for 3 to 5 minutes until onion begins to soften. Add fresh mushrooms, tomato powder, and 1/4 cup water. Cook for 5 more minutes. Then add seitan chunks, dried herbs, and rehydrated mushrooms that have been cut in pieces. Cook for 5 more minutes.

Add soaking water drained of any debris and porcini, if using them. Add the miso and stir. Cook for about 10 more minutes until vegetables are almost tender.

Combine the remaining 1/4 cup water with the arrowroot and add to the pan over medium heat, stirring until thickened. If too thick add water 1 tablespoon at a time. If too thin add arrowroot 1 teaspoon at a time. Season with black pepper. Add parsley just before serving.

Total Calories per Serving: 277
Fat: 5 grams
Quick Homemade Gluten

(Makes 1-1/4 to 1-1/2 pounds or 2 to 2-1/2 cups)

This is the basic recipe for gluten.

2 cups gluten flour  
1 teaspoon garlic powder  
1 teaspoon ground ginger  
1-1/4 cups water or vegetable stock  
3 Tablespoons lite tamari, Braggs liquid amino acids, or soy sauce  
1-3 teaspoons toasted sesame oil (optional)

Add garlic powder and ginger to flour and stir. Mix liquids together and add to flour mixture all at once. Mix vigorously with a fork. When it forms a stiff dough knead it 10 to 15 times.

Let the dough rest 2 to 5 minutes, then knead it a few more times. Let it rest another 15 minutes before proceeding.

Cut gluten into 6 to 8 pieces and stretch into thin cutlets. Simmer in broth for 30 to 60 minutes.

Broth:
4 cups water  
1/4 cup tamari or soy sauce  
3-inch piece of kombu (a type of seaweed)  
3-4 slices ginger (optional)

Combine all ingredients in a large saucepan. Bring broth to a boil. Add cutlets one at a time. Reduce heat to barely simmer when saucepan is covered. Seitan may be used, refrigerated, or frozen at this point.

Total Calories per 4 oz. Serving: 77  
Fat: 0 grams
Seitan and Shiitake Mushroom Stroganoff
(Serves 4)

Savor this hearty dish.

Vegetable cooking spray
1 Tablespoon oil
1 onion, chopped
8-12 ounces seitan cutlets, cut into chunks
1 carrot, finely cut or shredded
1 clove garlic, minced
1 cup sliced button mushrooms
6 to 10 dried or fresh shiitake mushrooms (If dried they need to be soaked for at least 30 minutes and then drained.), sliced
1 Tablespoon Bragg liquid amino acids, lite tamari, or soy sauce
5 ounces silken lite firm or extra firm tofu
1 Tablespoon lemon juice
1 Tablespoon arrowroot
1 teaspoon sweetener
Freshly ground pepper, to taste
1/4 cup chopped parsley, for garnish

Spray a wok or large sauté pan with cooking spray. Add the oil and heat. When the oil is hot, add the onion and seitan and sauté for 2 to 3 minutes. Add the carrot, garlic, and mushrooms. Cook until mushrooms release their water. Add liquid aminos and cook until almost all absorbed.

While the mushroom mixture is cooking blend the tofu, lemon juice, arrowroot, and sweetener in a blender or food processor until smooth.

Turn off heat and add the tofu mixture. Stir to combine. If heat is too high the tofu mixture will break apart and curdle. Add freshly ground pepper. Top with parsley and serve over hot noodles.

Total Calories per Serving: 135
Fat: 4 grams
Seitan Fusion Sauté
(Serves 4)

Enjoy this delicious dish.

1-1/2 teaspoons oil
1 medium onion, chopped
2 cloves garlic, minced
1 Tablespoon garam masala
8 ounces seitan, finely chopped or coarsely grated
2 cups shredded zucchini
1 cup chopped fresh tomato
1/2 can crushed pineapple in juice, undrained (20 ounce can)
2 Tablespoons peanut butter
1/2 cup lite coconut milk
Salt and pepper to taste
1/4 cup chopped fresh cilantro
Dash of Tabasco (optional)
Chopped peanuts for garnish (optional)

Heat the oil in a large skillet. Add the onion and sauté for 5 minutes. Add the garlic and garam masala. Stirring, cook for another 1 to 2 minutes. Add the zucchini, seitan, and tomato and cook for 1 to 2 minutes. Add the remaining ingredients, except cilantro and simmer over medium heat for 10 minutes until sauce begins to thicken slightly. Taste and add Tabasco if desired. Stir in cilantro. Top with chopped peanuts. Serve hot over rice.

Total Calories per Serving: 203
Fat: 9 grams
Barbecued Seitan
(Serves 4)

Cold leftovers of this dish are great, too.

Vegetable cooking spray
1 medium onion, diced
8-12 ounces seitan cutlets, cut into strips
1/4 cup barbecue sauce
4 whole wheat buns, optional

Spray a skillet with cooking spray. Add the onion and sauté over medium heat for about 5 minutes, adding water 1 tablespoon at a time if onion begins to stick. Cook until onion is translucent. Add the seitan strips and sauté for 1 to 2 minutes. Add barbecue sauce and stir to combine. Sauté until barbecue sauce is hot. Serve on whole wheat buns, if desired.

Total Calories per Serving (without bun): 69
Fat: Less than 1 gram
Seitan-Squash Sauté
(Serves 4)

Here’s another terrific seitan dish.

2 teaspoons vegetable oil
1 medium onion, sliced
2 small carrots, peeled and sliced on the diagonal
1/2 pound of seitan, marinated in tamari broth, cut in small chunks
1 medium-size yellow squash, diced
1 medium-size zucchini, diced
1 gray or roly-poly squash, diced
2 cloves garlic, minced
1 teaspoon grated ginger
1/2 cup pineapple juice
1 large tomato, pureed
1 Tablespoon seitan marinade or 2 teaspoons tamari with 1 teaspoon water
1 Tablespoon arrowroot (starch) mixed with 1 tablespoon water

Heat oil in large sauté pan over medium-high heat. Add onion and carrots. Cook for about 5 minutes until onion starts getting translucent. Add seitan, squash, garlic, and ginger and sauté for about 5 more minutes. Add the pineapple juice, pureed tomato, and marinade. Stir and cook for a couple of minutes. Remove pan from heat. Add the arrowroot mixture, stir well. Return to heat and stir until sauce thickens. Serve hot over rice or noodles.

Total Calories per Serving: 137
Fat: 3 grams
Mock BBQ Pork
(Serves 4 as an appetizer or used in a stir-fry)

Here’s a terrific tasting meat alternative.

8 ounces gluten, cooked according to directions below
1 Tablespoon toasted sesame oil
2 Tablespoons lite tamari or soy sauce
2 Tablespoons water
1 Tablespoon minced ginger
1 Tablespoon minced garlic
1 Tablespoon sweetener
2 teaspoons five-spice powder
Vegetable cooking spray

Form gluten into a cylinder and lightly simmer in water for at least 30 minutes until quite firm. Let cool and cut in small pieces in the Chinese "roll-cut" style. (Cut off one corner, turn the cylinder, cut again and continue.)

Combine the remaining ingredients to make a marinade. Marinate the gluten pieces for 15 to 30 minutes.

Preheat the oven to 300 degrees.

Spray a baking sheet with cooking spray. Drain gluten from marinade. Put on baking sheet and bake for 20 to 30 minutes. If gluten seems to be getting too dry, baste with the marinade.

Eat as is, use in a stir-fry, or as a filling for mock-pork buns.

Total Calories per Serving: 80
Fat: 3 grams