

APPENDIX 4

β -glucan Soluble Fiber Levels Found in Single Servings of Typical Barley Foods and Recipes

Table A.4.1 Grams of β -glucan Found in a Single Serving of Typical Barley Foods as a Function of the Level of β -glucan in the Raw Barley Grain.

Food Product	Serving Size (g)	Level of β -glucan in Barley		
		4%	5.5% ¹	7%
		β -glucan/serving (g)		
Quaker Pearl barley, uncooked	48.0	1.7	2.4	3.0
Hot barley cereal (flakes) - uncooked	40.0	1.4	2.0	2.5
Granola	49.0	1.3	1.8	2.3
Tortilla, soft – 100% barley meal or flour	51.0	1.4	1.9	2.4
Tortilla, soft – 50% barley meal or flour	51.0	0.7	0.9	1.2
Tortilla chips – 100% barley meal or flour	28.4	1.1	1.5	2.0
Tortilla chips – 50% barley meal or flour	28.4	0.6	0.8	1.0
Spice cake 100% barley meal or flour	96.0	1.2	1.6	2.0
Spice cake 50% barley meal or flour	96.0	0.6	0.8	1.0
Muffin – 50% barley meal or flour	57	0.5	0.6	0.8
No bake cookie – 100% barley flakes	90.0	1.2	1.6	2.0
No bake cookie – 50% barley flakes	90.0	0.6	0.8	1.0
Lemon cookie – 100% barley flour	30.0	0.3	0.6	0.9
Extruded barley/rice crisp – 50% barley	33.0	0.6	0.8	1.1
Extruded barley/corn puff snack – 50% barley	28.4	0.6	0.8	1.0
Turkish flat bread – 40% barley	64.0	0.7	0.9	1.2
Barley waffles ²	1 waffle	0.75	1.0	1.3
Spaghetti – 40% barley	56.0	0.8	1.1	1.4
Angel Barley Pilaf ²	¼ recipe	1.0	1.3	1.7
Stew with pearl barley ²	1/6 recipe	0.9	1.2	1.5
Barley almond vegetable salad ²	¼ recipe	1.3	2.0	2.3
Tuna barley garden salad ²	1/6 recipe	1.2	1.6	2.0
Barley Caponata ²	1/8 recipe	0.7	0.9	1.2

¹Average β -glucan level for barley presently found in grocery store.

²Recipes follow.

Recipes for Some Typical Barley Foods

Stew with Pearl Barley

1 cup barley, uncooked	1 small can kidney beans
1 large onion, chopped	1 tsp curry powder (optional)
2 cloves garlic, chopped	4 stalk of celery cut into small pieces
4 slices of ginger	2-3 potatoes peeled & chopped
2 cans whole tomatoes, cut into chunks	5 cups water
2 carrots chopped	

Place barley in large Pyrex bowl, add water, cover with plastic wrap and nuke for 20 minutes on full power. May need 10 more minutes until barley is cooked. Sauté onion, garlic, ginger & curry in nonstick pan. Continue to sauté adding the remaining ingredients, including barley: bring to a boil and turn to a simmer. Simmer 30-45 minutes until potatoes & carrots are cooked. You may have to add more water. Makes 6 servings for dinner.

Barley Almond Vegetable Salad

3 cups cooked pearl barley	1/2 cup sliced green onions
3/4 cup chopped bell pepper	1/2 cup dry, low fat cottage cheese
3/4 cup chopped jicama	1/3 cup toasted sliced almonds
3/4 cup sliced radishes	1/3 cup bottled fat-free salad dressing

In large shallow dish, place cooked barley in a single layer. Arrange vegetables, cheese and almonds in strips over barley. Cover and chill. Toss salad with dressing just before ready to serve. Makes 4 servings each with 6g fat and 245 calories.

Tuna Barley Garden Salad

1 cup pearl barley	1/2 cup green bell pepper strips
3 cups chicken broth	1/2 cup red bell pepper strips
1 cup broccoli florets	1 cup sliced zucchini
1 cup cauliflower florets	2 cans (6-1/2 ounces each) tuna in water, drained

Combine barley and chicken broth in saucepan. Bring to a boil. Reduce heat to low, cover and cook 45 minutes or until barley is tender and liquid is absorbed. Cool. In the meantime, steam or microwave broccoli and cauliflower florets about 2 minutes or until partially cooked. Cool. Combine broccoli and cauliflower with cooked barley, peppers, zucchini and tuna. Makes 6 servings.

Barley Waffles

1 cup barley flour	½ teaspoon salt
¾ cups all-purpose wheat flour	1 ½ cup skim milk
¼ cup granulated sugar	2 egg whites
3 ½ teaspoons baking powder	1 tablespoon vegetable oil

Combine flours, sugar, , baking powder and salt in large bowl; set aside. In small bowl, combine milk and eggs and oil. Stir liquid ingredients into dry ingredients until well blended. To prepare waffles, heat waffle iron. Pour in 1/2 cup batter. Bake until waffles are done. Makes 6 waffles each with 1g β-glucan , 2g TDF, 3g fat, 222 calories.

Barley Caponata

2 tablespoons olive oil	2 cups cooked pearl barley
1 cup chopped onion	1 can (15 ounces) garbanzo beans, drained
2 cloves garlic, finely chopped	1 can (14-1/2 ounces) diced tomatoes and juice
4 cups chopped eggplant	1 can (8 ounces) tomato sauce
1 red or green bell pepper, chopped	1 teaspoon seasoned salt
1/2 pound small fresh button mushrooms, sliced	1 teaspoon seasoned pepper
	1/4 cup balsamic vinegar
3 tablespoons chopped fresh basil leaves or 1 tablespoon dried basil leaves, crushed	1/2 cup chopped pimiento-stuffed green olives
1-1/2 tablespoons chopped fresh oregano leaves or 1-1/2 teaspoons dried oregano leaves, crushed	10 drops red pepper sauce

Heat oil in large skillet over medium heat. Add onion and garlic; sauté until golden, stirring occasionally. Add eggplant, bell pepper, mushrooms, basil and oregano; sauté 10 minutes. Stir in cooked barley, garbanzo beans, diced tomatoes and juice, tomato sauce, salt and pepper. Simmer 10 minutes. Mix in vinegar, olives and red pepper sauce; simmer 5 minutes longer. Makes 8 servings.

Angel Barley Pilaf

4 teaspoons olive oil, divided	1/2 teaspoon salt
1-1/2 cups chopped red bell pepper	1/2 teaspoon ground black pepper
1/2 cup chopped onion	2 angel hair pasta nests, crumbled
1 teaspoon fennel seeds	2-1/4 cups low-sodium beef broth
1 teaspoon dried basil leaves, crushed	3/4 cup pearl barley

Heat 2 teaspoons olive oil in 4-quart saucepan over medium heat. Add bell pepper and onion; sauté for 4 minutes, stirring occasionally. Mix in fennel seeds, basil, salt and pepper. Cook 2 minutes longer. Remove mixture from pan; set aside. Heat remaining 2 teaspoons olive oil in same pan over medium heat. Add crumbled angel hair pasta and sauté until lightly browned. Stir in broth, barley and half of the cooked vegetable mixture. Bring to a boil. Reduce heat to low, cover and cook 40 to 45 minutes or until barley is tender and liquid is absorbed. Stir in remaining vegetable mixture and continue to cook until warmed through. Makes 4 servings.