

## Extension promotes whole grains with artisan bread

### The Situation

The 2010 Dietary Guidelines for Americans continue to emphasize the importance of eating more whole grains. Whole-grain foods are valuable sources of nutrients lacking in the American diet, including dietary fiber, B vitamins, vitamin E, selenium, zinc, copper and magnesium. Whole-grain foods also contain phytochemicals that play important roles with vitamins and minerals in disease prevention.

Current scientific evidence indicates that whole grains play an important role in lowering the risk of chronic diseases, such as coronary heart disease, diabetes, and cancer. They also contribute to body weight management and gastrointestinal health. (Journal of Nutrition, May 2011)

Whole grains – whole wheat, brown rice, barley, and other grains in their less-processed forms – are digested more slowly than refined grains. So they have a gentler effect on blood sugar and insulin, which lengthens the time before feeling hunger. These foods contribute to disease prevention, and there is evidence that they can help prevent weight gain.

The weight control evidence is strong for whole grains. The most recent support comes from the Harvard School of Public Health diet and lifestyle change study: People who increased their intake of whole grains, whole fruits, and vegetables over the course of the 20-year study gained less weight – 0.4, 0.5, and 0.2 pounds less every four years, respectively. (<http://www.hsph.harvard.edu/obesity-prevention-source>)

Idaho grows four different classes of wheat; residents have access to fresh local wheat that can be used for products such as cookies, bread and pasta. This year's crop (up 3.9% over 2012) contributes to Idaho's



Gathering ingredients during artisan bread workshop

economy and helps keep Idahoans healthy. A population that eats nutritiously saves health care dollars and lost wages from illness. Southern Idaho residents were encouraged to add whole grains to their diets using a simple method of bread making.

### Our Response

Six artisan bread workshops were taught in 2013 and assisted Idahoans to improve dietary habits and prevent chronic diseases. An Extension Educator promoted and educated the public about eating more whole grains as part of the University of Idaho Eat Smart healthy eating campaign.

Artisan bread (a handcrafted loaf, mixed, shaped and baked individually) was used to illustrate a practical and popular way of adding whole grains to diets. These workshops gave participants the opportunity to taste and learn about the variety of whole grains available for purchase in local grocery stores.

More than 765 participants attended classes during 2009-2013. One hundred and twenty seven people who attended the Artisan bread and whole grain workshops in 2013 were surveyed for knowledge gained.

### Program Outcomes

There is a need for practical skill-based education to increase nutritious diets. The workshops were well attended; participants reported increased knowledge of whole grains and made changes in their eating habits. Additionally, it was reported that improved bread-making skills were being utilized at home.

Participants learned:

- the health benefits of eating whole grains
- the recommended number of servings and portion sizes
- how to identify whole-grain foods
- the cost of baking using basic ingredients
- how to make artisan bread

Participants reported knowledge gained using a 1-10 rating scale (1-no knowledge to 10-extensive knowledge). Knowledge and skills learned showed a gain from pre to post workshop mean values as reported on the survey (see table).

Table 1: Knowledge gained during artisan bread workshop N=83

Skills Learned	Pre-Workshop Mean Value	Post-Workshop Mean Value
Appropriate serving sizes	4.1	8.4
Difference between whole and refined grain	5.3	8.9
Dietary recommendations for whole grains	4.9	8.7
How to identify and purchase whole grain foods	5.2	8.8
How to make artisan bread with whole grains	5.4	9.0

Results of a follow-up study show participants who have taken this workshop manifest the following behavior changes:

- 55% increased whole grain consumption
- 67% added a variety of whole grains to their diets
- 75% are eating at least two servings and others as many as four servings daily.

Participants also reported these classes helped them add more whole grains to their diet by either purchasing or making whole grain bread at home. Comments included “The bread was easy to make.” “This (information) will also

impact the way I buy grains in the future.” “I will be more mindful of eating whole grains, thanks.”

Because these classes were so popular, the workshop has been taught to other Idaho Extension Educators (seven counties) and Idaho Nutrition Advisors (Eat Smart Idaho). A Colorado Extension Educator is currently using the materials as well. The program is now available across Southern Idaho and Colorado.

### The Future

Workshops will continue in 2014 with these added topics:

- the benefits of whole grains
- the use of natural yeast
- cool fermentation of dough
- preparation of baked products using non-gluten grains and flours

Classes will include menu-planning suggestions for a variety of whole grains used in foods other than bread.

### References

Whole Grains Council  
[www.wholegrainscouncil.org/whole-grains-101](http://www.wholegrainscouncil.org/whole-grains-101).  
<http://www.chosemyplate.gov/foodgroups/grains>, 2011.  
 The Journal of Nutrition, May 2011;141(5);1011S-22S.  
 The Journal of Nutrition, Supplement: Putting the Whole Grains Puzzle Together, Health Benefits Associated with Whole Grain—Summary of American Society of Nutrition 2010 Satellite Symposium.

### FOR MORE INFORMATION

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