

Schreiber & Sons

It's a Culinary Adventure
www.schreiberandsons.com

Week II

Produce items for this week:

- Dry peas - conventional
- Pearled barley – conventional
- Mustard seed - conventional
- Radishes – organic or conventional
- Spring salad mix - organic
- Baby bok choy – organic or conventional
- Asparagus – organic or conventional

The Weather. When I drove out to work at 6:30 on Wednesday, the temperature was 38 degrees. The overnight low was 36 degrees. The nighttime temperatures have mostly been in the low 40s. At this temperature most crops do not grow or grow very slowly. While the weather has warmed up some, we are still having significantly lower than usual temperatures. This weather means we are still behind in degree days, and as a result several of our crops are not ready on the schedule we had planned. For example, we planned to have kale and Swiss chard for the second week, but these plants are still too small to harvest due to the cold temperatures.

On Wednesday and Sunday nights we had high winds. On Thursday, we clocked wind gusts up to 40 miles per hour. Winds like this are very hard on new transplants. We had just finished transplanting a lot of eggplant and a variety of other crops. The wind and the dust blown by the wind blasted the transplants. Some of the plants were severely damaged, which stunts their development.

I checked the 10-day forecast today. It is supposed to be in the mid nineties within a week. Pretty soon, get ready to hear me talk about the problems caused by high temperatures.

We had some problems with people not knowing what was in their boxes (mostly dealing the bok choy). I send this email with a list of what you should expect to see in the box. We will not always know in advance exactly what will be in the box as it is possible that we could run out of a product mid-harvest. This list should be considered a guide and not an absolute. If you need more information, you can always check our website, particularly if you need recipes.

Our website -- Schreiberandsons.com

After the first delivery of the 2008 Schreiber & Sons CSA, I got the following questions from one member.

What is the preferred method of washing the produce? Does it need a quick rinse or something more? We aren't sure what will have pesticides and what won't.

Of course there is no need to say who asked this question (is there, Connie?). As with most things, I have some well developed thoughts on this topic.

Here goes.....

What is the preferred method of washing the produce?

This is a great question. A lot of the produce from our CSA will be washed immediately after harvest. For example, the lettuce is washed, dried in a huge salad spinner, picked through for quality control and bagged. The asparagus is washed, sorted a little, checked for quality and bunched. The bok choy is washed and bundled. We try to provide you with produce that has been washed or cleaned. **But** do not assume that the produce you receive is always ready to eat. It is your responsibility to determine if it is suitable for eating.

Everyone has a different standard of what is acceptable. I was raised on a farm and have little aversion to food with dirt on it. I have no qualms about pulling a radish out of the garden, wiping some of the dirt off the root and eating it. By the way, perhaps this is a hint of what to expect next week. I expect that if you examine your salad mix closely you may find a piece of dried stem from last year's crop, a bit of a root, a scrap of a decayed leaf or something else you do not want to eat. The moral of this story is do not assume everything we provide you is always ready to eat.

Now to answer the question..... there is no preferred method of washing produce. It depends on how dirty it is, what it is and a few other items. Asparagus should be rinsed off, the butt end broken (not cut) where it naturally snaps off. Lettuce should be washed, dried and picked through and it is ready to go. Theoretically, the lettuce should be ready to eat, but I am sure that a lot of the lettuce will have some extraneous matter in it. Do not use soap. The rinse chemicals that some companies sell are worthless. Use three things... water, effort and common sense.

Does it need a quick rinse or something more?

Ninety percent of the time a quick rinse and some inspection should be sufficient. Sometimes some items such as potatoes may need a light scrubbing.

We aren't sure what will have pesticides and what won't.

This is the question that I could spend the rest of the afternoon responding to.

Bear in mind that theoretically, both the conventional and organic produce could contain pesticide residues.... yes pesticides are used in organics and in many cases very commonly. A study on pesticide use practices in Washington potatoes found that organically grown potatoes received more applications of pesticides than conventionally grown potatoes. However, organically acceptable pesticides have to be naturally derived and in most cases have very low mammalian toxicities and usually are relatively benign environmentally.

So far this year all of our produce should be pesticide-free, and I suspect that for some time both the conventional and organic produce should be pesticide free. Eventually the weeds, insects

and diseases will rear their ugly, ugly heads, buds and hyphae, but until then we go to some lengths to refrain from pesticide use.

I have not a single qualm about using pesticides I do not think I ever met one I did not like, but pesticides have their place and the CSA is not the place for them.

Let me count the reasons why we minimize the use of pesticides.

1) Pesticides have something called REIs or restricted entry intervals. Once you apply a pesticide, you cannot go back into that area for 12 to 72 hours and for some products it is up to 7 days. We are going into our fields, beds, rows and orchards every day, usually many times a day. We cannot stay out that long.

2) Pesticides have something called PHIs or preharvest intervals. Once you apply a pesticide you have to wait a certain length of time before you can harvest the crop. These times range from 0 to 14 or more days. We are harvesting asparagus, bok choy, lettuces, etc almost every day now. For crops that we are harvesting or may be about ready to harvest, pesticides are out of the question.

3) In our style of growing, we plant a very wide diversity of crops. When you plant a mosaic of crops, insects and sometimes diseases, have a more difficult time becoming established. This reduces the likelihood the pest outbreaks occur and it reduces the need for pesticides.

4) There are some things we can do in lieu of pesticides, such as hand weeding, hand picking of insects, etc.

5) We know that many of our members would rather us use pesticide minimally, so that is what we do.

Bear in mind that eventually there will be some pesticide use. You almost can't escape it in some cases, both in the conventional and organic production. There is an indigenous leafhopper called the beet leafhopper and it transmits both a virus and a phytoplama. (It is a long story to explain what these are, even the names are long. The curly top virus and beet leafhopper transmit virescen agent or BLTVA). If we do not use something to protect tomatoes, we will lose our crop. What we try to do is make our applications prior to the time when fruit is on the plant so there will be no residues on the fruit. Also, we are using a very cool new product that naturally stimulates the plants immune system to make it resistant to the disease once it has been introduced in the plant. If this works, it will be a very promising tool.

The bottom line is that we think about things like pest control, pesticide use and what our customers want. The value system that each of you has runs the gamut from spray it until the bugs are dead, dead, dead all the way to those who want zero pesticides, organic or otherwise. We will not please everyone, but we will try. We give lots of thought to this and we want pesticides to be one thing you do not worry about.

I do not want to wave credentials around and come across like, *just take my word for it . . .* however, let me also say, I went to school for a very long time. After I graduated from high school back in Missouri, I spent four years on an undergraduate degree, three years working on a Masters and then another four years working on a Ph.D. My Ph.D. is in entomology (insects) and pesticide toxicology. I used to work at the Environmental Protection Agency in Washington, D.C. and as a professor at WSU, in both positions as a pesticide expert. I say this not to establish my credentials but to let you know that I know a little about pesticides and I want every member of

our CSA to be comfortable with our use of these products. Worry about what to do with bok choy or whether your kids will eat Swiss chard, but don't worry about the pesticides.

A couple of you come back with a question about the bok choy or the asparagus looking a little wilted and asked if there were some tips for proper handling or storage or if there was more we can do to prevent the produce from wilting.

This is a tough one. Keeping your produce looking good—keep in mind that this is your produce, you have already bought it—it is one of our biggest challenges. There is no problem with your produce being fresh; it is usually picked within 24 hours of when you receive it. The bigger challenge we have is keeping it from wilting. Plants have an amazing ability to keep their leaves, stems and fruits hydrated and fresh. Once it is picked it is a race against time to keeping it from wilting. Some crops like carrots last for a long time, other crops are quite fragile. Some of you already noticed that asparagus and bok choy are a little on the fragile side. The younger the plant is, the faster it will wilt (ie, baby bok choy wilts faster than more mature bok choy—but the flavor is also more delicate and sweet).

If you want to keep asparagus fresh, here is the straight scoop. Within four hours of being cut, the asparagus needs to be cooled, ideally down to 32 degrees. We do this, but our cool room only goes down to 40 degrees. Ideally it needs high humidity to keep from drying out. Ideally asparagus needs to never be allowed to warm up once it has cooled. Also the small spears wilt much faster than the large spears. Once you get asparagus, even if it is wilted, all you have to do is put it in the refrigerator and it will firm up again. For longer-term storage, trim the first 0.25 inches from the base, place it upright (butt end down) in a plate or pan of water. Our asparagus can last for 7 to 14 days like this.

Bok choy is more challenging. It is a fragile creature. It has to be kept out of the sun and as soon as possible chilled. Direct sunlight and high temperatures are a big problem for bok choy. As soon as you get it, put your bok choy in the refrigerator as soon as possible (I found that rinsing the bok choy, or filling up the sink with water and cleaning off the leaves, then shaking them dry and putting them in a plastic bag in the fridge brings back crispness within a few hours. Note from Tanya).

The temperatures we have now are the kindest ones we will have for keeping produce looking nice; what will happen when the day time temperatures are over 100 degrees? 1) We have to do as good of job as possible to harvest the best product as close to delivery as we can, get it cooled down as soon as possible, keep it out of the direct sunlight and high temperatures as much as possible. 2) Keep it in as cool location and out of the sun at the pick up site. 3) You need to get it the product refrigerated as soon as possible.

Finally, we are concerned that during the time we deliver it to the drop site that the produce gets warm. We are making plans to rent a second box truck that is refrigerated. This will help keep the produce in the best possible conditions. And finally—something to remember is that when you buy produce in the grocery store, it is often picked under ripe—to maintain a firmer image—but you pay the price in flavor. Some grocery produce is even treated with chemicals to maintain appearance and it can sit for days while being periodically sprayed with water to keep its shape. We aren't a grocery store. We pick your produce so you can eat it the day it is picked. There are some compromises in that scenario—but those compromises are not in flavor or nutrients (it has been proven that plants lose nutritional value from the moment they are picked).

There are many recipes on our website that you can use for the products you receive today. Some of my favorites include the asparagus marinade, Baby bok choy with rosemary and garlic, asparagus guacamole and asparagus pizza.

Mustard Seed

Brassica alba; Brassica nigra

Mustard has been consumed from time immemorial and has been cultivated ever since antiquity. It is an annual herb indigenous to the Mediterranean basin. Like cabbage, it belongs to the crucifer family. Known mainly for the condiment prepared from its seeds, the plant also has edible leaves—mustard greens.

There are about 40 species of mustard, the most common being black mustard—the variety you are receiving today. Black mustard grows to a height of about 40 inches. The plant has lobed leaves that are rough and hairy and small yellow flowers (that are hardly distinguishable from blooming canola). The flowers produce smooth, rounded seeds, which turn black when ripe. Their flavor is pungent, more so than that of yellow mustard, as the seeds contain a high percentage of essential oil; the oil is used by the food industry. The seeds you are receiving were grown for the condiment market and when you chew them long enough, have quite a spicy flavor. The hot taste comes from the presence of myrosin and myronate. Myronate is found in black and Indian mustard seeds, but not in white mustard (which explains the milder flavor).

In addition to the most common use, as a condiment on hot dogs at the ballpark, mustard seed can add a spicy, aromatic rustic taste and fragrance to your meals. Add some seeds to roasts or soups, to marinades, dressings or legumes (drop some in while cooking those lentils that you received last week). The mustard seed can be consumed whole; raw, roasted or browned in very hot oil (they turn bitter if burnt). When ground into a paste, they are a good base for rubs on meats or fish. We tried grinding some to use as a condiment this weekend, but gave up too soon and used the paste on Cornish game hens. The result was good, but I've heard you can make some great homemade mustard with a little more elbow grease.

Prepared mustard is made from seeds, macerated in a liquid such as wine, must, vinegar, or water. The mixture is then ground to a fine paste. The color, flavor and pungency of the resulting condiment depends on the seeds used and the seasonings that are added. You can easily make your own mustard condiment by first macerating the seeds in wine, vinegar or water. Grind them into a smooth paste, adding herbs and spices such as tarragon, turmeric, garlic, pepper, paprika or any others that you prefer to give your homemade mustard its own unique taste. If you get very ambitious and need more seeds to make a few jars—just let us know!

Dijon mustard is made with verjuice (the juice of unripened vine grapes) white wine, or wine vinegar, or a combination thereof. American mustard is made with black and white mustard seeds and turmeric.

Nutritional Benefits: Mustard is said to be a stimulant, a disinfectant, digestive, antiseptic, laxative and vomitive. It promotes the secretion of gastric juices and saliva, stimulates the appetite, and if used in moderation, eases digestion. Vineyardists often grow mustard between grape vines, not just because it is beautiful, but because it wards off pests. Mustard grown as a green manure crop is also commonly grown in the Columbia Basin as a natural pesticide.

Mustard seeds are a very good source of selenium and omega-3 fatty acids. They are also a good source of phosphorous, magnesium, manganese, dietary fiber, iron, calcium, protein, niacin and zinc.

Like other Brassicas, mustard seeds contain high amounts of phytonutrients called glucosinolates. The seeds also contain myrosinase enzymes that can break apart the glucosinolates into other phytonutrients called isothiocyanates. The isothiocyanates in mustard seed (and other Brassicas) have been repeatedly studied for their anti-cancer effects.

Mustard seeds are also a very good source of selenium, which has been shown to help reduce the severity of asthma, decrease some of the symptoms of rheumatoid arthritis, and help prevent cancer. They also qualified as a good source of magnesium. Like selenium, magnesium has been shown to help reduce the severity of asthma, to lower high blood pressure, to restore normal sleep patterns in women having difficulty with the symptoms of menopause, to reduce the frequency of migraine attacks, and to prevent heart attack in patients suffering from atherosclerosis or diabetic heart disease.

History: Mustard seeds can be traced to different areas of Europe and Asia with the white variety originating in the eastern Mediterranean regions, the brown from the foothills of the Himalayan Mountains, and the black from the Middle East. Mustard seeds are mentioned in ancient Sanskrit writings dating back about 5,000 years ago. They are also mentioned in the New Testament in which the kingdom of Heaven is compared to a grain of mustard seed.

While mustard seeds were used for their culinary properties in ancient Greece, it seems that it was the ancient Romans who invented a paste from the ground seeds, which was probably the ancestor of our modern day mustard condiment. The physicians of both civilizations, including the father of medicine Hippocrates, used mustard seed medicinally.

Mustard seed is one of the most popular spices traded in the world today. As it grows well in temperate climates, the areas that produce the greatest amount of mustard seeds currently include Hungary, Great Britain, India, Canada and the United States.

Storage: Mustard powder and mustard seeds should be kept in a tightly sealed container in a cool, dark and dry place. Prepared mustard and mustard oil should both be refrigerated.

A few quick serving suggestions: To add flavor, sprinkle some brown, black and white mustard seeds on top of rice before serving. Dredge chicken breast in prepared mustard and whole mustard seeds and bake. Make a cold millet salad by combining the cooked and cooled grain with chopped scallions, baked tofu cubes, garden peas and mustard seeds. Dress with lemon juice and olive oil.

A Few Interesting Facts about Mustard:

- Mustard plants produce about 1,000 pounds of seeds per acre.
- In one year at New York's Yankee Stadium more than 1,600 gallons plus 2,000,000 individual packets of mustard are consumed.
- Most of the mustard seeds used in Dijon, France are actually grown in the United States and Canada. Canada produces about 90 percent of the world's supply of mustard seeds.
- Over 700 million pounds of mustard are consumed worldwide each year.
- George J. French introduced his French's mustard in 1904, the same year that the hot dog was introduced to America at the St. Louis World's Fair.
- The Mustard Museum is in Mount Horeb, Wisconsin. It has the world's largest collection of mustards, with over 3,500 varieties.
- Mustard's pungency results from Acrynyl Isothiocyanate (in Brassica hirta), Allyl Isothiocyanate (in Brassica nigra and Brassica juncea). These compounds don't actually exist in the seeds, but are formed when the seeds are broken, releasing enzymes and other compounds within the seeds to combine in the presence of some form of moisture. The temperature of the liquid, which is used to prepare the mustard, as well as its acidity, determine the heat of the mixture. Too high a temperature, or a pH that is too low, and the prepared mustard will not be hot. The enzymes responsible for the transformation are

easily destroyed by heat--the seeds are ground, commercially, in a way that prevents build-up of heat from friction. In many south Indian recipes, the whole seeds are fried in hot fat, which provides, not additional spicy "heat" but, a pleasant nutty flavor. If you want the heat of mustard in a cooked dish, allow these enzymes to react first, then add the empowered product to the dish to be cooked. (An excerpt from by Gary Allen's forthcoming book, *The Herbalist in the Kitchen*.)

SPLIT PEAS

Pisum sativum

Dried peas have been consumed since prehistoric times. They probably originated in northwest Asia and were found in caves in Thailand that are over 11,000 years old. Fossilized remains of peas were found at archeological sites in Swiss lake villages, and the legume is mentioned in the Bible and was prized by the ancient civilizations of Egypt, Greece and Rome. The split peas you are receiving today are from the 2006 crop and come from Genesee Union, in Idaho. The Palouse is known for producing the highest quality peas, lentils and chickpeas in the United States. We don't get to visit our friends over there often enough, but make it a point to be there for a few days during harvest—so Julian may have been on the combine that gathered the product in your box.

There are hundreds of varieties of peas; all are spherical, a feature that sets them apart from beans and lentils. Dried peas are produced by harvesting the peapods when they are fully mature and dried naturally by the sun. During cleaning and sorting, the skins are removed and they split naturally, which speeds cooking time. Americans are most familiar with green peas, but yellow peas are also grown in the Palouse. They are most commonly consumed in Scandinavia and taste slightly different than green peas.

Nutritional Value: Peas and lentils are packed with so much fiber, protein, and other nutrients that the USDA recommends that legumes be consumed as both a meat and vegetable selection. Based on a 2,000 calorie diet, an adult should consume 2 ½ cups of vegetables and 5 ½ oz of meat and beans every day. You can stock up on vegetables with peas and lentils and you can stock up meat with peas and lentils.

Peas are a high protein food and a good source of potassium, two B-vitamins, and protein—all with virtually no fat. Peas, lentils, and chickpeas are also a good source of folate, a nutrient may help to stave off heart attacks, strokes and even birth defects (such as spina bifida).

Split peas, and chickpeas are good sources of important minerals like iron, magnesium, and zinc. They provide antioxidants such as Vitamin A and Vitamin C, which bind with and destroy free radicals, reducing oxidative damage to cells. The presence of phytochemicals in legumes is another reason why we should eat legumes regularly. Plants use phytochemicals to protect themselves from insects, disease, drought, and radiation. The body uses phytochemicals to fend off disease.

Check a chart of the fiber content in foods and you'll see legumes leading the pack. A single cup of cooked dried peas provides 65.1% of the daily value for fiber. Soluble fiber forms a gel-like substance in the digestive tract that binds bile (which contains cholesterol) and carries it out of the body. Not only can dried peas help lower cholesterol, they are also of special benefit in managing blood-sugar disorders since their high fiber content prevents blood sugar levels from rising rapidly after a meal.

And finally, are you sensitive to sulfites? Dried Peas May Help. Dried peas are an excellent source of the trace mineral, molybdenum, an integral component of the enzyme sulfite oxidase, which is responsible for detoxifying sulfites. Sulfites are a type of preservative commonly added to prepared foods like delicatessen salads and salad bars. Persons who are sensitive to sulfites in these foods may experience rapid heartbeat, headache or disorientation if sulfites are unwittingly consumed. If you have ever reacted to sulfites, it may be because your molybdenum stores are insufficient to detoxify them. A cup of cooked dried peas provides 196.0% of the daily value for molybdenum.

History: The modern-day garden pea, from which dried peas are made, is thought to have originated from the field pea that was native to central Asia and Europe. For millennia, dried peas were the main way that people consumed this legume. It was not until the 16th century when cultivation techniques created more tender varieties of garden peas that people began to consume peas in their fresh state as opposed to just eating dried peas. It seems that the Chinese, a culture that had consumed this legume as far back as 2,000 BC, were the first ones to consume both the seeds and the pods as a vegetable. Peas were introduced into United States soon after the colonists first settled in this country.

In the 19th century during the early developments of the study of genetics, peas played an important role. The monk and botanist, Gregor Mendel used peas in his plant breeding experiments. Today the largest commercial producers of dried peas are Russia, France, China and Denmark. Peas are grown in The Palouse as a rotational crop to put nitrogen back into the soil. Along with lentils and chickpeas, they form the foundation of rotational crops for wheat farmers, boosting yields and breaking soil disease cycles.

Storage: Dried peas will keep indefinitely if stored in an airtight container in a cool, dry, dark place. After long storage (or storage in light) their color may fade slightly, but their taste will not be noticeably altered. Long storage MAY increase cooking time.

Use: Before preparing dried peas, whether whole or split, inspect and remove any debris or dirt. Whole peas need to be soaked in cold water for at least eight hours before cooking, while split peas do not need this extra preparation. To prepare peas, place the legumes in a saucepan using at least 2 ½ cups of fresh water for each cup of peas. Bring to a boil and then reduce to a simmer and cover. Whole peas generally take about an hour to become tender while split peas only take about 30 minutes. Foam may form during the first 15 minutes of cooking, which can simply be skimmed off.

A Few Quick Serving Ideas: Split pea soup is a timeless favorite, however, don't limit yourself. Dry peas can also be used in a variety of other soups, salads and side dishes. If you can't find a recipe that suits your pallet in the brochures we included, check the USA Dry Pea and Lentil website for many more.

www.pea-lentil.com

Barley

Hordeum vulgare

Today you are receiving pearl barley from the Palouse. Pearl Barley or Pearled Barley is the most common form of barley available today. The hulls, including the bran, have been removed leaving the grains with a pearly white color. The polishing process involves scouring the barley six times during milling to completely remove the outer inedible hull and the bran layer. Pearled barley cooks in less time than the whole grain hulled form, however, many of its nutrients are removed along with the bran. Still, pearl barley is rich in protein and high in fiber. Barley is a versatile

cereal grain with a rich nutlike flavor and a chewy, pasta-like consistency, the result of its gluten content. Its appearance resembles wheat berries, although it is slightly lighter in color. Sprouted barley is naturally high in maltose, a sugar that serves as the basis for both malt syrup sweetener and when fermented, as an ingredient in beer and other alcoholic beverages.

Compared to other grains, barley is just about the toughest grain in the field. Barley will grow in many areas of the world where wheat will not thrive. It is a very hardy perennial with a relatively short growing season, maturing in about three months. These hardy qualities permit barley to tolerate flooding, drought conditions, and even frost. An added bonus for the farmer is this amazing grain's ability to resist insect infestation.

Cultivated for over 10,000 years, it is one of the oldest domesticated grain crops. Through these many years, more than 200 varieties of barley were developed. At present, barley is the world's fourth most important crop and an important staple in many countries. The largest commercial producers of barley are Canada, the United States, the Russian Federation, Germany, France and Spain. Though the U.S. is the third largest producer of barley, only a small portion reaches the table in its grain form. Almost half the United States crop of barley is used for brewing beer and most of the rest is used for feeding livestock.

Preparation and Use

Barley can be used in place of rice in almost any dish. And although mainly thought of as an ingredient in soups, barley grits are great for breakfast, and pearled or hulled barley is perfect for salads, side dishes or as the primary ingredient in main dishes and even desserts.

Like all grains, before cooking barley, rinse it thoroughly under running water and then remove any dirt or debris that you may find. After rinsing, add one part barley to three and a half parts boiling water or broth. After the liquid has returned to a boil, turn down the heat, cover and simmer. Pearled barley should be simmered for about one hour, while hulled barley should be cooked for about 90 minutes.

Storing

It's always best to store grains in airtight containers. Unrefrigerated, barley will keep for six to nine months. If the grains are stored in the refrigerator, they will keep several months longer.

Nutritional Value

The British employ barley in a number of folk remedies, claiming that barley water will settle an upset stomach. They have also rumored that barley water is the secret behind the beautiful complexions of their British women. Today, barley's claim to nutritional fame is based on it being a very good source of fiber and selenium and a good source of phosphorus, copper and manganese. Calcium, potassium, and phosphorous are also present in significant amounts.

Barley's fiber has multiple beneficial effects on cholesterol and can prevent or improve a number of different conditions including high blood sugar levels in people with diabetes, various cancers and even gallstones.

Though oats contain beta-glucan and have been advertised as the great panacea for lowering cholesterol, some varieties of barley contain up to three times the level of beta-glucans as most varieties of oats.

Food	Fiber Content in Grams
Oatmeal, 1 cup	3.98
Whole wheat bread, 1 slice	2
Whole wheat spaghetti, 1 cup	6.3
Brown rice, 1 cup	3.5
Barley, 1 cup	13.6
Buckwheat, 1 cup	4.54
Rye, 1/3 cup	8.22
Corn, 1 cup	4.6
Apple, 1 medium with skin	5.0
Banana, 1 medium	4.0
Blueberries, 1 cup	3.92
Orange, 1 large	4.42
Pear, 1 large	5.02
Prunes, 1/4 cup	3.02
Strawberries, 1 cup	3.82
Raspberries, 1 cup	8.36

*Fiber content can vary between brands.

Yet another reason to increase your intake of barley is that barley is also a good source of niacin, a B vitamin that provides numerous protective actions against cardiovascular risk factors.

For people worried about colon cancer risk, barley packs a double punch by providing the fiber needed to minimize the amount of time cancer-causing substances spend in contact with colon cells, plus being a very good source of selenium, which has been shown to reduce the risk of colon cancer significantly. A cup of cooked barley provides 52% of the daily value for selenium. Selenium is an essential component of several major metabolic pathways, including thyroid hormone metabolism, antioxidant defense systems, and immune function.

Copper, another trace mineral supplied by barley, may also be helpful in reducing the symptoms of rheumatoid arthritis. One cup of cooked barley provides 32% of the daily value for copper. The phosphorus provided by barley plays a role in the structure of every cell in the body. A cup of cooked barley will give you 23% of the daily value for phosphorus.

History

A glass of beer, a loaf of bread, a bowl of porridge, a standard of measurement, a form of currency, a medication--they all began with barley. Barley, an ancient grain possibly even older than rice, originated in Ethiopia and Southeast Asia, where it has been cultivated for more than 10,000 years. During the latter part of the Stone Age, early man was sprinkling grains of barley over various foods, adding a chewy, nutty quality to his meals. The grain was used by ancient civilizations as a food for humans and animals, as well as to make alcoholic beverages; the first known recipe for barley wine dates back to 2800 BC in Babylonia. In addition, since ancient times, barley water has been used for various medicinal purposes. (Don't forget the line in the Nanny song from Mary Poppins, "Never smell of barley water . . .")

Ancient cultures were forming loaves of barley bread long before domesticating wheat. Since barley contains only miniscule quantities of gluten, the protein that makes wheat breads rise easily, the breads made from this grain were heavy and quite dense but nutritious nonetheless. Our cultivated barley of today was once a wild grass that originated in the Near East, though

some food historians believe China was the place of origin, while others say it was Ethiopia. Archeologists discovered remnants of wild barley, *H. spontaneum*, at many sites across a belt that stretches from North Africa on the west to Turkey, Iran, and Afghanistan in the east.

Egyptian hieroglyphics dating back to 5,000 BC mention barley's importance to sustenance. To many Egyptian workers barley meant life. The enslaved people who built the pyramids endured intense desert heat, heavy labor lifting huge stones, and dawn to dusk hours on a spartan diet. Their meals consisted of a mere three loaves of barley bread a day and an allotment of beer--made from barley. The earliest brewing methods of using barley to brew beer, originating in Mesopotamia, actually began with barley bread made from sprouted grains. Since the crop was also the primary grain of the Hebrews it is not surprising that it was mentioned in the Bible. The Babylonians created the oldest known recipe for making barley wine and inscribed the directions in a cross-shaped form on a library brick dating back to 2,800 BC. Barley continued to play an important role in ancient Greek culture as a staple bread-making grain as well as an important food for athletes. Roman athletes continued this tradition of honoring barley for the strength that it gave them. Gladiators were known as *hordearii*, which means "eaters of barley." The grain journeyed into China before wheat and was honored in the country as a symbol of male virility since the heads of barley are heavy and contain numerous seeds.

Historians report that up until the 16th century, barley was the most important grain on the European continent. Since wheat was very expensive and not widely available in the Middle Ages, many Europeans made bread from a combination of barley and rye. The Spanish introduced barley to South America in the 16th century, while the English and Dutch settlers of the 17th century brought it with them to the United States. Since wheat and corn were plentiful in North America, barley was never used for baking bread. It gained its popularity as an important ingredient for making beer.

Barley malt, used as a sweetener, originated in China before it became popular and used almost exclusively as a sweetener in Japan. Today, pearl barley is a favorite of the Japanese, while the grain is highly valued in Tibet and surrounding areas of the Himalayas for its ability to grow successfully in those high altitudes where weather conditions are extreme.

As a measure and currency

Barley was so highly valued that many civilizations used it as a form of currency and measure. The Sumerians note the use of barley for measurement and money on their cuneiforms dating back 3500 BC. And in the Code of Hammurabi, 1750 BC, the Babylonians employed barley as simple monetary exchange.

From the 1300s to the 1700s the barleycorn standard of measurement became the foundation of the measurement system that existed in Great Britain and America. In about 1305, Edward I of England decreed that one inch should be the measure of three barleycorns, and English shoe sizing began; thus a child's shoe that measured 13 barleycorns became a size 13. The term barleycorn, originally *barli-corn*, can be traced back to the Anglo-Saxon era in England about the fifth and sixth centuries through the eleventh century. It was then that farming communities relied on this grain as a unit of measurement as well as weight. The word barleycorn referred to each grain of barley as a unit of length equal to 1/3-inch or about 8.5 millimeters, with about 3 barleycorns laid end to end equal to one Anglo-Saxon ynce, which later became "inch." Twelve of these ynces was determined as one foot, or 36 barleycorns, or the running foot at 39 barleycorns.

The term originally used for the weighing of barleycorn is "grain," eventually becoming "gram" in the metric system. This term existed before the troy and avoirdupois weight systems.

Southwest Barley Salad

From January/February 2005 "Country Woman"

3 cups reduced-sodium chicken broth	1/2 cup chopped green onions
3/4 cup uncooked medium pearl barley	1/2 cup minced fresh cilantro
1 cup fresh or frozen corn	1 garlic clove, minced
1 cup canned black beans, rinsed and drained	1/2 cup salsa
3/4 cup chopped sweet red pepper	3 Tbs. reduced-fat sour cream
1/2 cup chopped green pepper	2 Tbs. lime or lemon juice

In a saucepan, bring broth to a boil. Stir in barley. Reduce heat; cover and simmer for 40 to 45 minutes or until tender. Drain and cool. In a large bowl, combine the corn, beans, peppers, onions, cilantro and garlic. Stir in barley.

Just before serving, combine the salsa, sour cream and lime juice; add to barley mixture. Serve warm or cold. Yield 6 servings. Diabetic Exchange: 2 starch, 1 vegetable