

The WHOLE GRAIN CONNECTION between farmers and bakers  
First Newsletter February, 2000

*Charles Schulz and Peanuts*

All of us are saddened to know that Charles Schulz died last Saturday, together with his wonderful cartoon strip. He was 77 and I know we must always be very grateful that he stayed and drew for so long as he did. But perhaps he did not need to die yet. Perhaps he could have stayed healthy longer and continued to help us longer with his humorous antidote to our human dilemmas. Charles Schulz died of colon cancer, and so did my father, my mother's friend, my brother's childhood best friend's young mother, my school friend's husband..... In fact I know more people who have either died from colon cancer or have been treated for colon cancer, than have died or suffered from heart disease, breast cancer or prostate cancer.

Why am I telling such a sad story? Because it is one of the main reasons I have pursued whole grain breadmaking for all these years, and in earnest since 1982. The connection between a diet of refined foods in combination with excessive amounts of meat especially beef, and colon cancer incidence, has been known at least since the mid 1970's. Now the research is pointing out that the fiber and phenolic compounds in the bran and germ of whole grains, as well as those in fruits and vegetables, are tremendously protective factors against colon cancer, and also against cancers of the rest of the digestive system, and breast and prostate. An example research reference is by Chatenoud et al., in the American Journal of Clinical Nutrition, 70:1107, 1999. Other benefits from whole grain eating include protection against obesity and adult onset diabetes, no more constipation, and prevention of diverticular disease ..... Whole grains should be billed as a wonder cure! At least the 2000 USDA dietary guidelines recommend increased emphasis on whole grains. But why are the refined products so easy to buy and the whole grain

products so rare? The answer lies mainly in history. Refined flour was once the ideal, and it was finally achieved by the roller milling advances of the 1880's. Diseases such as beriberi then unknown or rare became common place, and were eventually recognized as vitamin deficiency diseases. The deficiencies were produced by the removal of the vitamin-rich bran and germ from the flour supply, as practiced by the roller millers. By the 1940's the remedy used was to add vitamins back into the flour. Cereal companies by advertisement encouraged us to take in bran via breakfast cereals..... The reputation for whole grain bread was dense, heavy, and unappetizing and only the independently thinking eater dared to declare it actually gourmet, despite the daily recognition that a diet of white bread, white pasta, white cake and white pastry was intolerably constipating!

*The Whole Grain Connection. What is it?*

The present wheat milling industry is vast and almost completely uniform in that wheat is milled into three separate basic products, refined flour, bran and germ. The refined flour is used for bread, cakes, pastry, pasta, noodles..... the bran and germ are mostly used as additives in animal feed. What a sorry state of affairs! But who am I, Monica Spiller, to think that I can alone change this ridiculously unhealthy situation, that has been in operation for more than a hundred years!? The answer of course is that indeed I cannot alone make things change, but with your help in a joint effort as the *Whole Grain Connection*, I believe we can make the choice of whole grain products much more readily available. The connections we need are between bakers of whole grain breads, whole grain pasta makers, whole grain cookie makers, whole grain pastry chefs....., and the farmers who would like to grow the grains organically for just those users. The situation is nearly perfection, because the

milling is so very simple. The carefully cleaned and dry grains are sent through a stone mill once, and all the product is collected together as the whole grain flour. There is no need for tempering (moistening) of the grains before milling, and no need for sifting, or enriching with vitamins after the milling, and almost no need to store the grains in the form of flour. Either the farmer or the flour user can easily be the miller. There is no need for a middleman except as a liaison between the farmer and the user. This is where the *Whole Wheat Connection* would function. We could be the means of connecting farmers and whole grain users and we could research the markets. The opportunity arises for using old fashioned wheats that were abandoned because they were not efficiently roller milled. The possibility of independence from wheat breeding programs involving commercially protected hybrids or genetically modified seeds is vital to the continuation of organic grain farming. Farmers can once again find a wheat variety suited to their microclimate and grow it year after year, saving enough for seed, and allowing a reciprocating baker to establish a specialty bread for example. Farmers need a market, and whole grain users need to know the farmers who could directly and, marvellous possibility, even locally supply them. The *Whole Wheat Connection* could be non-profit, so that the bakers and farmers would always obtain a fair direct deal. We'll be needing a membership list, together with ongoing information about farmers crops and whole grain users needs. We'll need to have a relevant newsletter, and a web page. From the first organization we may find that localized groups of farmers will be willing to buy equipment together and will form co-operatives. We have a number of models to look to, such as the non-profit California Olive Oil Council, or the Blue Diamond almond co-operative, or the Sun-Maid raisin co-operative. The *Whole Grain Connection* will nevertheless be unique, and will develop

according to the members participation, and input.

### *Farmers progress towards again growing old fashioned wheat*

California has a fortunate climate; it is Mediterranean in type and suited to growing fruits, nuts and vegetables to perfection. So when the wheat that was once grown here in massive amounts, lost its popularity to the hard red wheats of the Mid West and Canada, Californian wheat farmers started over with fruits, nuts and vegetables. The hey days of Californian wheat were from 1860 until the advent of roller milling in the 1880's. By the 1900's it had declined to one fifth of the high point of 3 million acres, and it has stayed at approximately this level ever since. The originally grown Californian wheats were white grained, but because of their softness, when they were roller-milled they did not produce a flour anything like as good for breadmaking as the hard red wheats..... The explanation for this is another story, but it meant that a whole range of ancient beautiful wheat varieties fell from favor. It was of no use for a farmer to grow them when millers would not buy them, and bakers could not use them! Fortunately there is a seed collection maintained by the USDA that includes a huge number of wheat varieties that are no longer grown or that are grown only in very limited areas, worldwide. Having tapped into this resource for the last eight or so years, we have been able to re-grow some of the wheats originally introduced into California. The USDA also supplied us with samples of the ancient wheats einkorn and emmer..... After all we have a Mediterranean climate and our climate echoes that of the Middle East where wheat agriculture was begun. This year there are six farmers growing out wheat varieties at the acre level. From this crop we could, theoretically at least, seed 10 acres or more for each acre planted, and still have plenty left for baking trials. At the 10 acre level wheat farmers rent or use the biggest combines, and can interest bakers

because they can supply the grain in quantity. So to make it worth while all around, we need to form the *Whole Grain Connection*, so that the farmer can be assured of a market, the baker can be assured of the best ingredients, and that both will feel that the price was fair. For this, the *Whole Grain Connection* is expected to have a price negotiating committee representing both farmers and bakers.

*Whole grain baking research progress*  
*Laurel's Kitchen Bread Book*, by Laurel Robertson and friends, and published in 1984, has become a classic for whole grain bread bakers. Although most recipes call for bakers yeast, it includes desem breadmaking and Alan Scott's oven building. Since then Alan Scott has continued to build his famous woodfired brick ovens, and to promote the art of making whole grain desem breads. Parallel with the influence of *Laurel's Kitchen Bread Book*, there arose the artisan breadmaking movement, including Steve Sullivan's breakaway from Alice Water's Chez Panisse restaurant, to found Acme Bakery, and supply the restaurant with French style bread daily. These breads were made with a starter, and still are, and are baked on a hearth at least and often on a woodfired oven hearth. The idealized selected flour by artisan bakers is organic and unbleached, but refined. Compounding the irony is the fact that this refined organic flour without additives, is also not enriched with vitamins, and so is delivering a terribly deficient bread to unwitting consumers - unless the bakers themselves are adding vitamins to compensate for the deficiencies. Conventionally grown unbleached, refined wheat flour for artisan bread baking is apparently still usually enriched with vitamins. Some of the bakers for whom Alan Scott has built ovens are purely whole grain bakers, but the vast majority are artisan bakers of refined wheat flour breads. Whole grain bakers and these artisan bakers are the ones who would love to be able to use locally and organically grown wheat. Perhaps we can

invite the artisan bakers to make 100% whole grain breads with this wheat. In 1999 Alan Scott joined forces with Daniel Wing to produce *The Bread Builders*, a book that describes both oven building and artisan breadmaking.....

The idea of whole grain breads with white grained wheats, rather than red grained wheats, has caught on strongly, over the last decade. For example, it is possible to buy a modern hard white spring wheat (Prairie Gold) in bakery quantities from Wheat-Montana. Also, for the last ten years or so, Kansas has had a hard white wheat development program, and is marketing its modern white wheat quite strongly now. The missing links are methods that make good use of the old fashioned wheats that were grown before the advent of roller milling. After all, before that time whole grain breads were the norm. Only the rich could afford to throw away 15 - 25% of the wheat, which is essentially what millers are doing today, when they remove bran and germ. So this work of finding out how to make good whole grain breads with all kinds of wheat has been the focus of Monica Spiller's work. The work was begun in 1982, and a starter with unusual microorganisms was produced from organically grown whole wheat. It was given the name of *barm*, because that was one of the old English names for a starter. The other name, *yeast*, was used for the microorganism predominant in bread, beer and winemaking, when it was recognized as such by Pasteur in the 1866. The barm is currently available by mail order or bakers can make their own using her instructions. How to make a barm and whole grain barm breadmaking is described in two books published in the 1990's, *Eat Your Way to Better Health* and *Nutrition Secrets of the Ancients*, both by Gene Spiller, but containing barm recipes by Monica Spiller. Peter Reinhart famous for his *Brother Juniper's Bread Book*, has written *Crust and Crumb* more recently, and he includes barm bread recipes, but they are artisan style and in

general include refined flours. In 1998 Monica Spiller recognized an important improvement to the method of barm bread making, and since then has continued to work on improving the recipes for whole grain barm breads. Work is in progress on the final stages of a book that will include these improved recipes, for a wide range of wheat types, and other grains such as rye and teff. The goal is to have the book published by the end of 2000.

#### *What to do first for the Whole Grain Connection?*

Perhaps before all else, we need to announce our intention to exist to the IRS because they will be the ones to grant us non-profit status, and this I, Monica Spiller will endeavor to do. The process will include opening a devoted bank account for the organization. Following this we will need to tell as many farmers and bakers as possible who could be interested in working within the framework of the *Whole Grain Connection*. This is something that you the reader can do. If you are reading this newsletter, the way in which you can help is to copy it, together with the member application form, and circulate it among the farmers and bakers that you know who could be interested. We shall be pleased of course to have other members as well as wheat farmers, such as equipment suppliers, farmers of grains, seeds, nuts, olives and legumes, home bakers, homesteaders, educators, wheat weavers..... Contributing a membership fee will help us to offset initial expenses. Eventually our expenses will be substantially covered by the farmer and baker members who actively use the services of the organization.

Next we shall need to form a committee from which we can choose the officers and board for the organization, so that we can move forward with the drafting of our bylaws. We need to make this organization strong and that means that it needs the contribution of a thoughtful group of people.

If you serve on this committee, you will be contributing your expertise and your good sense, towards helping the *Whole Grain Connection* succeed in its very important endeavors.

A price negotiating committee will be needed from the beginning, and should include both farmers and bakers among its members.

A logo would be nice to have early on and so would a web page. We have an urgent need to help the farmers who have planted at the one acre level to harvest their seed in the summer of this year 2000. The help they will need is either many hands or equipment that will allow them to harvest, segregate, store and manage their seed successfully. Tasks that are already under way are the selecting of wheats and other grains to seed, researching the uses for these grains, learning how to grow wheat organically and sustainably, keeping track of the health benefits recognized for whole grains, building a mailing list, publishing a newsletter .....

#### *Future topics for this newsletter*

- Bakery and farm size grain mills
- Planting & harvesting grains on an acre or less
- Red wheats vs white wheats
- Soft wheats vs hard wheats
- What we need to tell our customers about whole grain nutrition
- From spelt to bread

#### *The Whole Grain Connection, Newsletter*

Written contributions from members, are encouraged, in the form of short articles (under 1000 words), and letters to the editor (under 300 words).

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