

# Is Refined Food Really Organic?

A Review of the Evidence

May 2012



“We are losing the power to establish a balance between what we think and what we feel and will. It is urgent that mankind becomes enough aware of an immensely widespread, subconscious tendency which opposes the tendency to establish a tough-minded responsibility for whatever one formulates as a truth. Something can only really become a truth after it has been placed, so to speak, in all kinds of positions, and has light cast on it from various directions – only if one has really suspended judgement for as long as possible. No over-hastily expressed points of view, no over-hastily expressed opinion can be the truth. But the worst thing of all is the unconscious and subconscious lying that contains a quarter or an eighth or a sixteenth of the truth. It might even be ninety-eight percent true, but the dynamic impetus of the remaining two percent corrupts the whole thing.”

Rudolf Steiner



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Nutritional Research & Education

Based on Anthroposophical Spiritual Science

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# INTRODUCTION

This report is the outcome of my research focusing on the question: Is organic food which has been refined in its true character really in accordance with what are the core values and standards of the organic movement? Can food which has been refined still be promoted, certified and labelled as organic without compromising the quality of organic food and good work done in the organic movement?

This research is in many ways the result of my intensive involvement in the organic movement since 1988. From then onwards I have been working in various fields, all related to nutrition: public promotion of natural foods and organic agriculture, collaborating in the setting of the Slovenian organic standards, environmental lobbying, co-running a small-scale wholefood bakery (mainly in the role of manager), food marketing, cooking, curative therapy, writing and teaching about holistic approach to nutrition. In all these activities I was always promoting the core values of the organic movement, including good quality organic wholefoods. I am currently a member of the Biodynamic Association, but I don't have any active role in it. For all these reasons I count myself as an active member of the organic movement.

Although I am in this report focusing on things which are not good, this does not mean that I do not see or recognise all the strengths and positive achievements of the organic movement. But it is not my doing if I have been confronted – because of the chosen topic of my investigation – mainly with things which are symptoms of a serious weakness. For that reason the given evidence in the following chapters may be challenging for some people inside the organic movement. But one needs to know that my main intention is to raise awareness about an issue which it has troubled my mind and heart since I first encountered ORGANIC REFINED FOODS in its true scope in 1998 when I left Slovenia and moved to the west, first to the Netherlands and later to England.

For that reason my report can be seen as a contribution to the ongoing process of improving food quality and practices inside the organic movement and not as something troublesome. I think that it would be detrimental to the organic movement as a whole if the facts collected in this report appeared in the media. Now is a chance to improve what needs to be improved.

## Glossary

To avoid any unnecessary misunderstanding I will describe the meaning of the key words used in this report.

The term REFINED FOOD(S) in this text refers only to different forms of refined carbohydrate foods, such as:

- ♦ white rice, white pasta, white bread, white flour, etc.;
- ♦ partially refined flours (i.e., 85% brown flour, etc);
- ♦ all sugars that have been subjected to any stage of refining;
- ♦ products made exclusively from above ingredients;
- ♦ products which contain any of above ingredients as a main ingredient.

Whenever I use (ORGANIC) REFINED FOOD(S) in upper case it has the above meaning. Whenever I use 'refined food(s)' in lower case, it means all kinds of refined food, including refined oils and refined salt.

There is a great deal of confusion in regard to the various types of sugar: one cannot rely either on names of sugars or their colours. Even information on the percentage of sucrose for various sugars is contradictory. To avoid confusion due to this problem I decided to use the expression:

- ♦ 'whole sugar' for sugar which has not been subjected to refining
- ♦ 'refined sugar' for sugar which has been subjected to any stage of refining  
(see also [4.2 Whole versus Refined Sugar](#))
- ♦ 'highly refined sugar' for refined sugar where crystals do not stick together but can flow easily when handled (i.e., Demerara, granulated sugar, etc.)

The term (ORGANIC) WHOLEFOOD(S) refers to whole, unrefined carbohydrate foods, such as:

- ♦ whole grains, wholemeal bread, wholemeal flours and flakes, etc.
- ♦ natural sweeteners: whole cane/beet sugar, malt syrup, concentrated fruit juices, maple syrup, honey, etc.)
- ♦ products containing wholemeal cereal ingredients and/or natural sweeteners (but without any refined ingredients added to a product).

Whenever I use WHOLEFOOD(S) in upper case it has the above meaning. Whenever I use 'whole food(s)' in lower case, it means all kinds of wholefood.

The main question of this research is addressed from various perspectives, all focusing *exclusively* on the comparison of advantages or disadvantages of attitudes and practices related to WHOLEFOOD(S) and REFINED FOOD(S). When I wish to emphasise, or just to remind the reader about this, I will use the expression WHOLEFOOD VS REFINED in upper case.

For the sake of clarity all quotes inside the text (even the single words) are in [blue](#).



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This writing was done in four separate periods from December 2008 to May 2012. In between – while I was occupied with other nutritional activities – there might have been some changes in practices and the standards of those members of the organic movement which are presented in this report. Beside this, there are still some things unclear because of the lack of information available to me due to various reasons.

I am not in a position to spend additional time checking all the documents I am quoting from in this report. Beside this I do not think it is really necessary. If anything has improved, then such cited examples can be taken as historical evidence of past practices. If it hasn't changed – or if changes are not substantial – then they serve the purpose of this report.

There is another thing I would like to clarify. In this report there are mainly examples from the UK due to the fact that I have been living in England since 2000. This does not mean that things I am pointing out are happening only in the UK. I have seen things also elsewhere, for wherever I go I also visit organic shops and go through their shelves – with a magnifying glass which enables me to read the labels! It is your task – if I may say so – to check the situation in your own country in regard to issues presented in this report. With your help we can get an overview of what is the present worldwide situation inside the organic movement in regard to WHOLEFOOD VS REFINED.

You will also notice that I am presenting in this report a few examples of attitudes towards WHOLEFOOD VS REFINED coming from the mainstream food sector. On the first glance they might seem irrelevant for the organic market. But, my intention is to compare them with similar practices inside our movement, and show where their origins are. The members of the organic movement are also part of the whole society and it is logical that we are influenced by what is happening around us. But we need to be on guard and not imitate things and practices which are going contrary to core values of the organic movement.



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# HOLISTIC APPROACH TO NUTRITION

Health – origin: Old English hǣlth, of Germanic origin; relating to whole

Oxford English Dictionary

Present-day mankind must, above all, realise more and more that man is a complicated being and that everything to do with man is connected with this complexity of his being. If there is a kind of science holding the opinion that man consists merely of a physical body, it cannot possibly work beneficially with the healthy or the sick human being. For health and illness have a relationship to man as a whole, and not to one part of him only, namely the physical body.

Rudolf Steiner

A holistic approach to nutrition is very extensive and multilayered because of the extremely complex nature of the human being. Even if we look to the physical body only we can see a bewildering complexity when we penetrate to the cellular and molecular levels. If we add to this the complexity of other natural kingdoms which are the sources of the food we consume, we can understand the difficulties when one wants to approach the questions of nutrition in a truly holistic way.

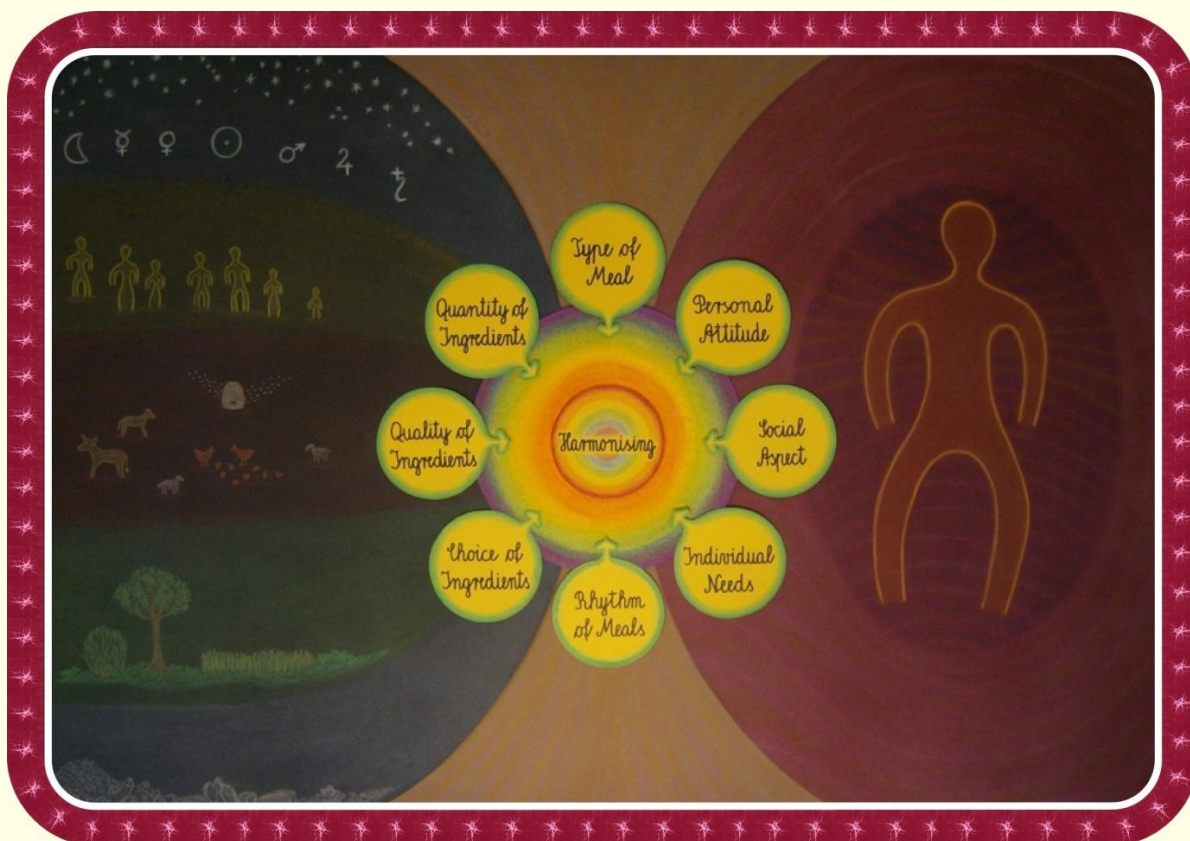
My website is an attempt to cut through this confusing complexity and to formulate the fundamental principles of a holistic approach to nutrition in a similar way to the fundamental principles of organic farming. For this reason I am here giving just a brief introduction. For the rest you will have to, if you wish, visit my website (see [Appendix 1: New Food Culture Website](#)).

I always stress that whenever we deal with the living organism, one cannot underestimate anything which has an effect on it. I never say that nutrition is the only important or the most important thing in regard to human health. My understanding is that everything “[a person does, or is guided to do](#)” [1] is extremely important. We need to extend our knowledge and awareness about the multitude of physical, psychological and spiritual influences and their interrelationships with various parts of human being. This is a real holistic approach to human health and wellbeing.

The guide for the practices of the members of the organic movement should be based on understanding how the food affects the human being in all his manifold aspects. In regard to the question of what kind of food is the most appropriate for human beings we need to guard against the very widespread practice of one-sided, simple answers. Even if we leave aside those answers which are motivated by profit, we are still not free from false conclusions. In many cases what is true inside limited areas turns into falsification when it is extended to the whole humankind. This is the most widespread error in regard to nutritional rules and advice with which we are flooded nowadays in the media and elsewhere.

For that reason I will present an overview of all possible influences which contribute to the final outcome of a meal and which determine if the meal fulfils the needs of a person in a healthy way, or it does not. If we want to understand the essential differences in the effects of WHOLEFOOD VS REFINED we need to get first a broad picture which will prevent us to be lost in the details when we focus on the particular aspects in the following chapters.





## Nine Aspect of a Healthy Meal

As you can see the question of the quality of ingredients in our food is just one among nine aspects. [2] This shows that any attempt to promote ORGANIC = HEALTHY is contrary to the facts of life. Of course, one can say organic food is *healthier than* food produced by the help of artificial chemical substances (but I think that such an approach is not permitted by EU organic regulations). However, the use of general health claims for promotion of organic food is leading people into false beliefs that one can ‘buy health’. The reality is: as we cannot buy an understanding of something with the purchase of a book, we cannot buy health with the purchase of organic food. In both cases we need to put in an effort to achieve either understanding with the help of good book or a healthy state of balance with the help of good food.

But this does not lessen the importance of food quality. On the contrary – it has a tremendous significance. One can find the aspect of quality in all other aspects. In fact, living organisms are never working in an isolated manner, but within them everything is interrelated. Only for the sake of understanding do we need to separate out of them various aspects of their being.

Because of this living web of interconnections I had some difficulties in keeping exclusively to the chosen topic in the following chapters. Of most importance is that the presented facts are understood and that links are established by the readers themselves. I hope that in the follow up there will also be presented additional perspectives. Only if we listen to each other can we improve our understanding of the numerous aspects of food quality. In a way this should be our ‘duty’ if we are seriously committed to the task of producing food which will serve the needs of human beings in the best possible way.

# 1. CORE VALUES OF THE ORGANIC MOVEMENT

In this chapter I compare the core values from the pioneer phases of the organic movement with the present situation in regard to WHOLEFOOD VS REFINED.

## 1.1 Journey from Whole to Refined

From 1988 to 1998 I have been active in the promotion and development of organic agriculture and natural foods in Slovenia. In those years there were no any certified organic farms in Slovenia, but there were individuals and groups of gardeners, farmers, and consumers who already started to make practical steps towards production and consumption of natural foods. It was the pioneering phase, full of people with high ideals and great enthusiasm for the core values of the organic movement. And in spite of the fact that in those times there existed plenty of disagreements between different 'fractions' of the organic movement in Slovenia, I did not meet anyone who would promote REFINED FOODS as organic. Quite the opposite, white bread and white sugar were symbols of the fast food culture we were opposing.

Our understanding that organic food should be as natural as possible was due to different influences. One important influence was Fritjof Capra [3]. In his book *The Turning Point* he gives the following description: [4]

The basic features of a healthy diet are well known. To be healthy and nutritious, our diet should be well balanced, low in animal protein and high in natural, nonrefined carbohydrates. This can be achieved by relying on three basic foods – whole grains, vegetables, and fruits. Even more important than the detailed composition of our diet are the following three requirements:

- ♦ our foods should be *natural*, consisting of organic food elements in their natural, unaltered state;
- ♦ they should be *whole*, complete and unfragmented, neither refined nor enriched;
- ♦ and they should be *poison-free*, organically grown, free from poisonous chemical residues and additives.

These dietary requirements are extremely simple, and yet they are almost impossible to follow in today's world.



Natural products from our bakery in Slovenia



In the bakery which I started and ran for six years in Slovenia, we could not meet all these requirements, for there were no Slovenian certified organic ingredients available. But we were getting our grains from 'organic' farmers we knew, we had our own miller who used stone mills to grind our flour, we used mainly wholemeal flour, or a mixture of wholemeal and brown flour (but never any white flour), and for sweetening mainly barley malt, concentrated apple juice and minced raisins. We promoted our products as natural. But on many occasions it happened that a consumer seeing our dark brown products commented: "Oh, you sell organic food!"

It was evident that in public opinion organic was (and in Slovenia still is) associated with the brown, wholemeal products, not with refined ones. Such an attitude was confirmed with the following event. In September 1995 I participated in the international workshop *Introduction of Organic Agriculture in Selected Danube Countries & the Three Baltic States* which was held in Croatia (organized by Dutch foundation Avalon). There were mainly members of organic movements from former communist countries (i.e., from the pioneer stage of their organic movement), and only a few representatives of organic movements from western countries (i.e., from the advanced phase of their organic movement). One day two members from Slovakia presented a project of growing organic sugar beets and producing white sugar. This caused quite some agitation amongst participants, even some laughter on the part of Slovakian members. There were no voices in their defence; that means that the vast majority of participants were of the opinion that white sugar and organic farming are not compatible.

So far – in twenty-four years of my involvement with the organic movement – I haven't heard about any pioneer of the organic movement that did not include WHOLEFOODS as an essential feature of natural foods. In *The Origins of the Organic Movement* are presented many such pioneers. Among them was Edgar J. Saxon, editor of *Health and Life* magazine (starting in 1920), who established the first health food restaurants, called *Vitamin Cafés*, between the wars. One paragraph from the book describes his understanding of a healthy diet: [5]

For Saxon, true health was wholeness. Diet was central to its cultivation, and he worked to create a public demand for 'honest food.' By this phrase he meant whole foods, home-grown without artificials and without having been refined, adulterated or processed. He commented on the British people's 'curious notion that purity is the absence of colour,' which led to the popularity of tasteless and devitalised substances like white bread and sugar. Chemists were the beneficiaries, and the financial system was the culprit, judging wealth not by people's health but by 'its ability and willingness to buy third-rate stuff in shops.'

According to Phillip Conford, the author of the book, Edgar J. Saxon "has been almost completely forgotten in comparison with McCarrison and the Pioneer Health Centre" (another pioneer and another initiative of the organic movement in UK).

What about the *Pioneer Health Centre* which has supposedly not been forgotten? The founders of this initiative, Scoot Williams and Innes Pearse (and I can assume also other founder members of Soil Association) shared "concern about the British people's poor health and inadequate diet, high in white sugar and white bread." [6] "The *Pioneer Health Centre* was an ambitious experiment, concerned ultimately with changing the nature of society and nutrition." [7]

There is no doubt that the consequent work of the members of Soil Association was in the direction of the improvement of the quality of "the British people's poor health and inadequate diet". There can be listed many achievements and positive results of their work.

But what about the improvements of the consumption of WHOLEFOODS? Do the British people today consume less white sugar and white bread? Here is one answer: [8]

Despite much promoted health benefits, only one of twelve loaves of bread in UK are made from wholemeal flour, a staggering 92% of bread still being white.

And according to the UK Nutritional Statistics 2005 “only 5 – 25% of British adults are consuming the recommended levels of fibre.” So where does the organic movement stand today in regard to WHOLEFOOD VS REFINED? Where are the initiatives inside our movement to improve consumption of WHOLEFOODS?

## 1.2 Story of Infinity Foods



In 2011 Infinity Foods Cooperative celebrated forty years of its existence. On their website we can get a glimpse into the very beginning of this cooperative (*italics mine*): [9]

Infinity Foods began in 1971 with a small shop in Brighton, England. In 1985, as a result of the increasing demand for bulk *wholefood* orders a group of members set up a separate wholesale branch of the business... Over the years, as the *wholefood market* has grown so too has the wholesale division of Infinity Foods. What started as a small outlet at the rear of the shop is today one of the UK's leading national distributors of high quality, organic, fairtrade and natural products.

“We have a very firm commitment to promote Organically Certified products, indeed we have been at the forefront of introducing an organic choice to the British consumer. Over the years our reputation for quality and choice has really established The Infinity Foods range as UK's leading brand of essential organic foods and produce.”

Where do they stand today in regard to ORGANIC WHOLEFOODS? This is their answer: [10]

In recent years people's attitudes towards their health, the environment and issues surrounding food production have changed enormously, with far greater awareness of the implications of all of our actions. Here at Infinity, *our core principles* of sourcing locally grown and produced, organic, non-GM, fair-trade, vegetarian foods have been matched in equal part by the increasing demand for these same foods from our customers.

As one can notice their very first shop was selling wholefoods and later expansion was still serving the needs of ‘*wholefood market*’. But when the cooperative lists their present core principles in the above quote the word ‘wholefood’ is not mentioned anymore. No surprise if one looks at their catalogue [11]. Among many wholefood products they have also many ORGANIC REFINED FOODS. For example:

|                             |             |
|-----------------------------|-------------|
| ♦ White rice                | 4 products  |
| ♦ Organic white flour       | 13 products |
| ♦ Non-organic white flour   | 2 products  |
| ♦ Organic white pasta       | 46 products |
| ♦ Organic refined sugar     | 10 products |
| ♦ Non-organic refined sugar | 13 products |

There are many more REFINED FOODS in their catalogue among chocolate products, jams, juices, cordials, etc. But, contrary to the above facts, in the same catalogue are advertising that they ‘manufacture and distribute wholefoods’:



The above wording is such that customers can get an impression that ORGANIC and WHOLEFOOD is the same. For if it were not the same then it would be written “we *also* manufacture and distribute wholefoods.” This impression is confirmed by the next statement (italics mine): [12]

Our extensive Infinity Foods organic range is certified by The Soil Association, the UK’s leading organic charity. Soil Association certification is your guarantee that the products meet with *the highest standards of integrity* across all sectors of the organic market.

In fact, the members of Infinity Foods cooperative have the following opinion about their own beliefs (italics mine): [13]

We believe that it is our responsibility to provide *food that is as far as possible, natural and unadulterated*, free from GM and hydrogenated fat, organic and ‘Fairtrade’ accredited and sourced from companies with high ethical standards.

It seems as if they do not notice any disparity between the core values and quality standards in regard to WHOLEFOOD VS REFINED in spite of the fact that (italics mine): [14]

Back in 1970, two friends opened a *macrobiotic* café at the University of Sussex called “Biting Through”, which led to a demand for the ingredients they were using in their cooking. The following year, they opened a small shop in a converted terraced house in Church Street. Here they sold basic vegetarian *whole foods* and freshly baked products.

The above referred two friends initiated their whole business inspired by macrobiotics (see Appendix 2: Macrobiotics Stand to Wholefood vs Refined). Are they not capable of seeing that their story is not just ‘40 Years of Good Stuff’ but it is also a story of how in 40 years the core values and quality standards in regard to WHOLEFOODS have been diluted to an extreme degree?

## 1.3 Deadly Threat to Organic Integrity

In 2001 the president of the Soil Association, Patrick Holden, gave an overview of seven deadly threats to organic integrity. He lists the following ones: certification wars, price wars, compromises on food quality, agricultural establishment ignorance, the food standards agency, own label products, and consumer ignorance. In the Conclusion of his article he wrote: [15]

Those who have nurtured the growth of the organic movement must be ever vigilant that, like so many radical movements, it does not, as a direct result of its success, become its opposite. If we successfully resist these threats we could transform our food culture.

From my personal experiences as a regular consumer of organic foods the most dangerous threat of all is the compromise on food quality. I've been too many times negatively surprised with the bad quality of particular organic food which I have eaten. Quite a few times I was even shocked with the extreme low quality of particular organic produce.

But there is something more to this. Until a few years ago I was convinced for some good reasons that in spite of the many ORGANIC REFINED FOODS that I could see around there was no chance that organic organisations would ever allow the existence of organic white sugar. Then in April 2008 I saw the first one! This prompted me to start my investigation; since then I have discovered more and more examples of white and other types of highly REFINED FOODS hidden inside organic products.

White rice, white bread, and white sugar have been *the* examples of Junk Food in the pioneer stages of the organic movement. Now they have become an integral part of it. Is not this a case of dilution of core values of the organic movement 'par excellence'?

Now I am concerned whether there are still enough people who carry the core values of the organic movement in regard to ORGANIC WHOLEFOOD against the opposing forces of "vested interests (that) seek profit before principle" [16]. For we need such people who will "advocate constant vigilance against the dilution of organic standards" [17] more than ever before.

## CONCLUSION

If we look at the core values of the organic movement versus the fast food culture we can see the following main food attributes:

### New Food Culture

Natural Food  
Wholefood  
Organic Food

### Fast Food Culture

Altered/Adulterated Food  
Refined and/or Enriched Food  
Food with chemical residues & additives

Thus we can see that in the beginnings of the organic movement natural food, wholefood and organic food were synonyms – presenting three different aspects of the same thing. But now it is different: the split has happened. Inside the organic movement are still those who are adhering to these core values. Beside them are those who have been accepting the existence of ORGANIC REFINED FOODS as something 'natural'.

Regardless of the reasons behind the dilution of these core values it is fact that nowadays ORGANIC does not mean WHOLEFOOD anymore. Now we can even buy Organic White Sugar – the utmost symbol of the fast food culture!

## 2. INTEGRITY OF ORGANIC STANDARDS

Here are presented examples of how organic standards are dealing with the issues related to ORGANIC REFINED FOODS.

The versions of organic standards used are those from December 2008 (i.e., before new EU Organic Regulation came into force on 1<sup>st</sup> January 2009). I doubt whether the new EU Organic Regulation made any improvements in regard to issues addressed this chapter. But if in the meantime there have been any improvements it will be really good to hear about them.

### 2.1 Integrity of IFOAM Standards

When one looks into *IFOAM Basic Standards* [18] with the intention of finding out their position in regard to WHOLEFOOD VS REFINED then the first thing one can find is very striking: the absence of any clear standpoint or even more general guideline about this important issue. In the whole *IFOAM Basic Standards* there is only one single reference to ‘whole foods’ – but even this is not in the main text, but in the appendix that describes processing and handling criteria for the evaluation of food additives and food processing aids (see [Appendix 3: A Single Reference to Whole Foods in IFOAM Standards](#)). Nowhere else in the whole *IFOAM Basic Standards* can one find any reference to ‘wholefood’, ‘wholemeal’, ‘wholegrain’, ‘unrefined’ or ‘refined’.

I would expect at least something inside the *General Principles* which describes general goals of organic production and processing, or inside *Recommendations* of desirable practices for IFOAM members. Leaving such important issue of food quality in the grey area – that is, not addressing the topic at all – is very surprising, to say at least.

This absence goes against two basic *Principles of Organic Agriculture* which “serve to inspire the organic movement, and which guide IFOAMs development of positions, programs and standards. Furthermore, they are presented with a vision of their world-wide adoption. They are composed as ethical principles to inspire action.” These two principles are: *The Principle of Health* and *The Principle of Care*. Let’s look on these two principles with special attention to the question how they are congruent with the existence of ORGANIC REFINED FOODS (italics are mine):

#### The Principle of Health

Organic Agriculture should sustain and enhance the health of soil, plant, animal, human and planet as one and indivisible.

This principle points out that the health of individuals and communities cannot be separated from the health of ecosystems - healthy soils produce healthy crops that foster the health of animals and people.

*Health is the wholeness and integrity of living systems.* It is not simply the absence of illness, but the maintenance of physical, mental, social and ecological well-being. Immunity, resilience and regeneration are key characteristics of health.

The role of organic agriculture, whether in farming, processing, distribution, or consumption, is to sustain and enhance the health of ecosystems and organisms from the smallest in the soil to human beings. In particular, organic agriculture is intended to produce *high quality, nutritious food that contributes to preventive health care and well-being.* In



view of this it should avoid the use of fertilizers, pesticides, animal drugs and food additives that may have adverse health effects.

### The Principle of Care

Organic Agriculture should be managed in a precautionary and responsible manner to protect the health and well-being of current and future generations and the environment. Organic agriculture is a living and dynamic system that responds to internal and external demands and conditions. *Practitioners of organic agriculture can enhance efficiency and increase productivity, but this should not be at the risk of jeopardizing health and well-being.*

Consequently, new technologies need to be assessed and *existing methods reviewed*. Given the incomplete understanding of ecosystems and agriculture, care must be taken.

This principle states that *precaution and responsibility are the key concerns in management, development and technology choices in organic agriculture*. Science is necessary to ensure that organic agriculture is healthy, safe and ecologically sound. However, scientific knowledge alone is not sufficient. *Practical experience, accumulated wisdom and traditional and indigenous knowledge offer valid solutions, tested by time*. Organic agriculture should prevent significant risks by adopting appropriate technologies and rejecting unpredictable ones, such as genetic engineering. Decisions should reflect the values and needs of all who might be affected, through transparent and participatory processes.

The existence of certified ORGANIC REFINED FOODS goes also against the *IFOAMs General Principle for Processing and Handling* which states:

Organic processing and handling provides consumers with nutritious, high quality supplies of organic products and organic farmers with a market without compromise to the organic integrity of their products.

The existence of certified ORGANIC REFINED FOODS goes also against the *General Principle for Processing Methods* which states:

Organic food is processed by biological, mechanical and physical methods in a way that maintains the vital quality of each ingredient and the finished products.

The evidence that ORGANIC REFINED FOODS does not fulfil these principles will be presented in the following chapters.

## 2.2 Integrity of Soil Association Standards

Another example of a big gap between declared goals and practice, is the *Soil Association Organic Standards*. [19] On the one hand they are well intended basic principles in regard to wholefood (which in itself is a big improvement in comparison with *IFOAM Basic Standards*). Among others one can read:

The Soil Association believes good health is founded on having a diet predominantly composed of minimally processed wholefoods. We cannot support food policies that accept the routine removal and degradation of nutrients by refining and other processing as normal...

Our standards aim to ensure that the product is kept as near to its natural state as possible. Organic food processing is a balance between preserving the original quality of the raw materials and producing a food product that is tasty, safe and nutritious. We aim to do this as authentically and honestly as possible...

The Soil Association is concerned about public health, therefore our processing standards ensure that products are kept as near to its natural state as possible. This is because a healthy diet can be undermined by eating overly-processed foods.

But then on the other hand the Soil Association is certifying organic foods which are:

- ♦ products which include highly refined sugar (Photo 1 Left)
- ♦ products made from white flour and highly refined sugar (Photo 1 Right)
- ♦ white sugar (Photo 2) and white flour



Photo 1

Left: Wholewheat Digestives, made with Demerara sugar

Right: Duchy Highland Shortbread, made from white flour and Demerara sugar



Photo 2

Two types of organic white sugar (100% sucrose)

When encountering such extreme contradiction between stated goals and the certification practices in regard to WHOLEFOOD VS REFINED one might start to question how much one can trust the other claims made by the Soil Association.

## 2.3 Integrity of Demeter Standards

Demeter standards are the leading ones among IFOAM members in many aspects of quality. This is true also for *Demeter Processing Standards for Biodynamic Food Production* [20]. But even here exists a gap between the general aims and certified products in regard to WHOLEFOOD VS REFINED. On the one hand one can read (italics are mine):

In the anthroposophical view of nutrition, attention is directed both toward the material, and the forces that are housed in it. The aim of a quality oriented processing method is to maintain these forces, and where possible tap them to make them available. It is known today that, as well as *the generally recognised importance of wholefoods for physiological nutrition*, food is especially nourishing when its inner quality is appropriately and harmoniously developed. Processing to yield DEMETER products must recognise this fact.

Something similar can be found on the website of the Biodynamic Agricultural Association. As their general rule is:

Best Quality: The Processing Standards are specially designed to preserve or enhance the high quality.

In the *Standards for the certification of DEMETER bread, cakes and pastries* we can find the recommendation:

Saccharose, even bio-quality, should be avoided and wherever possible be replaced by honey, whole cane sugar, raw sugar, maple syrup, concentrated fruit juices, malt extract, (and some other sweeteners).

But on the other hand in their *Standards for the production of DEMETER sweetening agents* is the following compromise: “For the production of raw sugar and white sugar an application has to be made.” For what purpose is not clear.

Beside this, customers can buy certified Demeter white rice, white flour, refined sugar, and even an extending range of products made with partially and highly refined flours and sugar.

## Conclusion

The standards of all three organisations – IFOAM, Soil Association and Demeter – are suffering from the same problem: in regard to WHOLEFOODS VS REFINED there exists a gap between basic principles on the one hand and practices of food production and certification on the other hand. In its intrinsic nature it is the gap between ideals of organic movement and business practices of those who produce organic food.

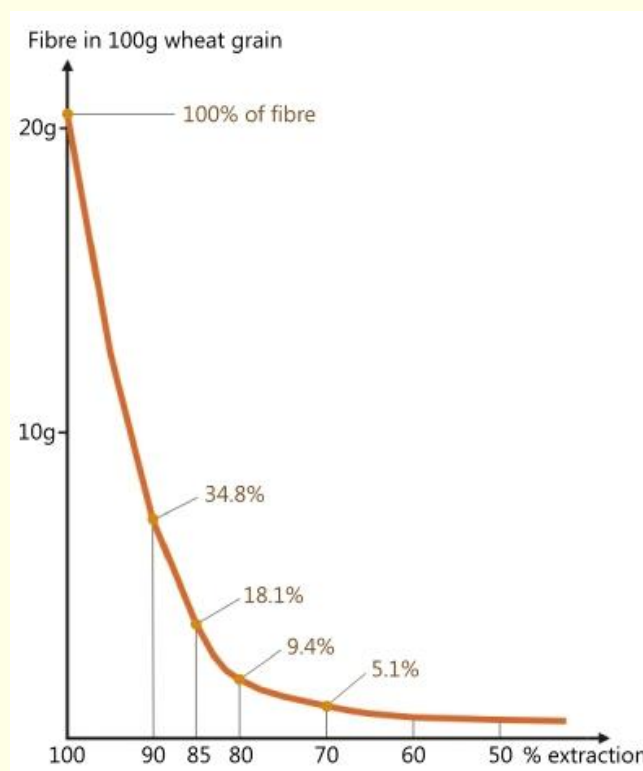
### 3. QUESTION OF FOOD QUALITY

The question I am focusing on in this chapter is: What are the results of refining carbohydrate foods on the quality of food produced by this method? For that reason we will look at examples of refined wheat flour and refined sugar, which are quite common examples of ORGANIC REFINED FOODS.

The refining process belongs to those food processing methods which aim to extract a particular substance out of the whole(food). We need to be aware that only animals eat wholefood in the most essential meaning of this word. Human beings have developed many methods of extraction of food substances out of crops: oil from olives, juice from the apples or sugar cane, brown or white flour from the whole grain, etc. With each specific product we need to decide when we can still talk about wholefood. For this reason we need to look also at the other extreme, when the extraction goes so far that we get a single food substance in its mineral form, as it is the case with sucrose, fructose, and similar substances. In other words, we need to ask: How much extraction/refinement is still natural enough that it is in accordance with the quality of food that the organic movement is striving for?

#### 3.1 Wholemeal versus Refined Flour

The first thing that is lost through refining of wheat flour is fibre. Here is a graph showing the relationship of extraction rate to the amount of fibre in the wheat grain. [21]



The graph shows that on average 100 g of wheat grain contain about 20.5 g of fibre. Now if we take this amount as 100 percent and compare with the extraction rate (i.e. how much of the grain we retain from the whole), we see the following:

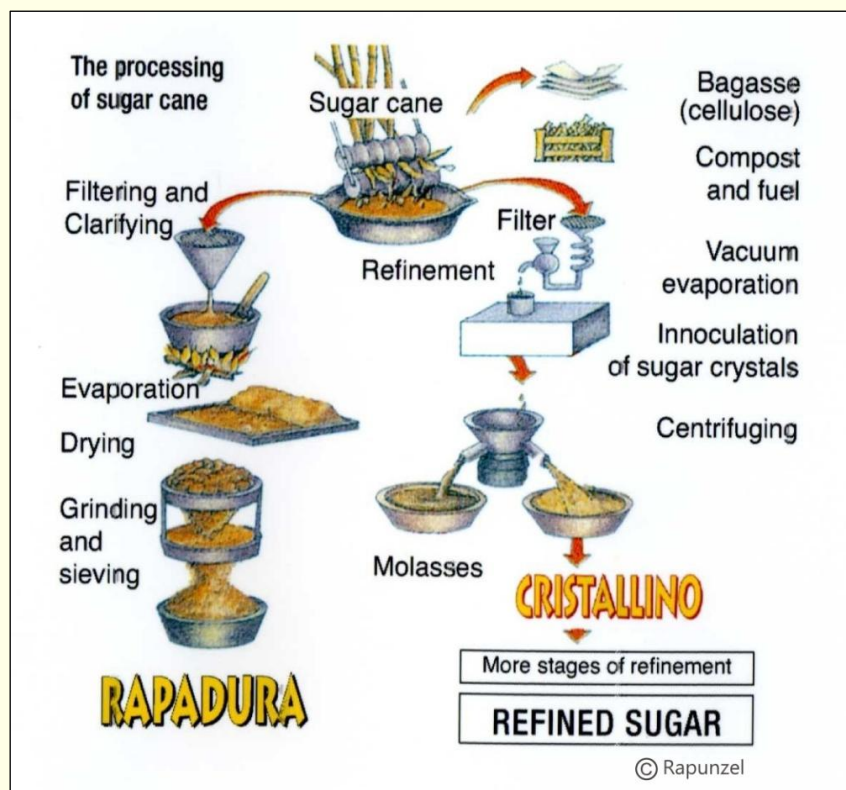
- ♦ at 100% extraction rate (wholemeal flour) we do not lose any fibre
- ♦ at 90% extraction rate we lose about 65% of fibres
- ♦ at 85% extraction rate (brown flour) we lose about 82% of fibres
- ♦ at 80% extraction rate (stone-ground white flour) we lose about 90.5% of fibres
- ♦ at 70% extraction rate (white flour) we lose about 95% of fibres [22]

A similar pattern of loss can be found in regard to essential minerals and vitamins. In the table below are shown losses of the most important micronutrients in the case of white flour. [23]

|            | Whole Wheat Grain<br>(per 100g) | White Wheat Flour<br>(per 100g) | Percentage<br>Lost |
|------------|---------------------------------|---------------------------------|--------------------|
| Calcium    | 44 mg                           | 15 mg                           | 66%                |
| Iron       | 3.3 mg                          | 1.9 mg                          | 42%                |
| Magnesium  | 147 mg                          | 20 mg                           | 86%                |
| Potassium  | 502 mg                          | 108 mg                          | 78%                |
| Vitamin E  | 1400 mg                         | 400 mg                          | 71%                |
| Vitamin B1 | 480 mg                          | 60 mg                           | 87%                |
| Folic Acid | 49 mg                           | 10 mg                           | 80%                |

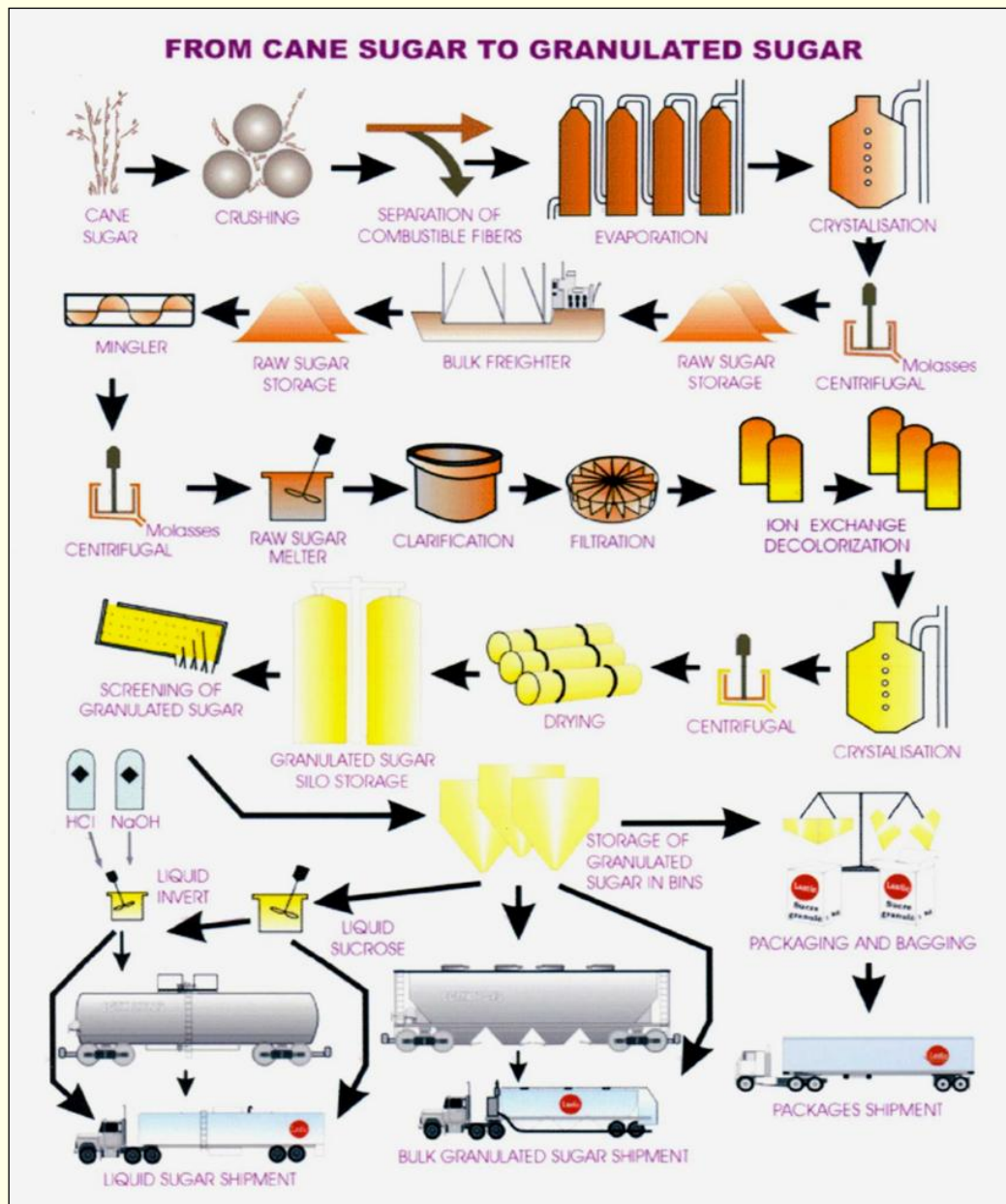
Fibre, minerals and vitamins are concentrated in the outer layers and germ. When we use wholemeal wheat flour, we use 100 percent of the grain. When we use white flour we still get 80 to 70 percent of the whole grain. But the loss of fibre is about 91 to 95 percent. And we lose also a much higher percentage of minerals and vitamins, mainly between 65 to 85 percent.

## 3.2 Whole versus Refined Sugar





The above picture [24] compares the production of whole cane sugar with refined cane sugar. For better understanding, we need to look also at the whole sequence of processes involved in the production of white sugar. [25]



Just for clarification: ‘granulated sugar’ is another way to say ‘white sugar’.

For an illustration here is a description of the one phase of sugar refining, the first after the arrival of sugar into the refinery (beginning of second and third row): [26]

Raw sugar is made up of sugar crystals that have a thin film of impurities on the surface. It is mixed with hot (60°C) impure syrup (made from a solution of water and sugar) which softens the film. This mixture, known as magma, is a dark brown viscous mass. Magma is fed sequentially into a battery of 14 centrifuges, each of which can spin at up to 1050 rpm with a batch cycle time of about two minutes. This centrifugal force separates the raw crystals from the impure raw syrup.

Rapadura – as an example of whole sugar – has the following composition (approximate values for 100 g of sugar): [27]

|                 |         |
|-----------------|---------|
| Saccharose [28] | 95 %    |
| Potassium       | 1300 mg |
| Calcium         | 180 mg  |
| Magnesium       | 70 mg   |
| Phosphorus      | 37 mg   |
| Iron            | 8.2 mg  |
| Sodium          | 1.1 mg  |

White sugar is 99.9 or 100% saccharose.

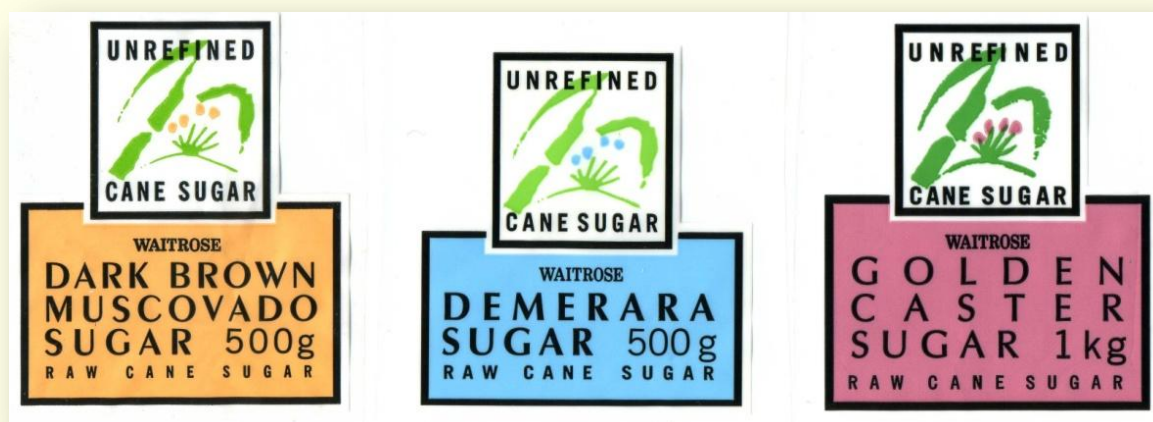
If we now compare the two methods of sugar production we see on one side a simple processing method with a high quality outcome: whole sugar. And on the other side we see more costly and complex processing with the outcome of nutritionally inferior white sugar.

In between these two sugars are ‘all shades of brown’: medium brown, light brown, golden brown, light yellow, golden, light tan, beige, light beige, and whitish. [29]

### 3.3 ‘Natural–Raw–Unrefined’ Sugar

First we will look at an example of sugar marketing inside the mainstream food market. This will help to understand the origin of some practices used also among organic producers (presented in chapter 6. LABELLING OF ORGANIC REFINED FOODS).

In the supermarket chain Waitrose the customer can see the following range of various types of cane sugar under the double trade mark ‘Unrefined Cane Sugar’ and ‘Raw Cane Sugar’. In the photo are three labels from this range.



In the table below is the whole range with the basic nutritional information.

| Type of Sugar               | Sucrose | Molasses |
|-----------------------------|---------|----------|
| Dark Brown Muscovado Sugar  | 90%     | 10%      |
| Dark Brown Soft Sugar       | 94%     | 6%       |
| Light Brown Muscovado Sugar | 96%     | 4%       |
| Light Brown Soft Sugar      | 98%     | 2%       |
| Demerara Sugar              | 99%     | 1%       |
| Golden Granulated Sugar     | 99.6%   | 0.4%     |
| Golden Caster Sugar         | 99.6%   | 0.4%     |

Now we will compare this with the above pictures of sugar production. The production of whole and refined sugar has something in common: the first stage of extracting the juice from the sugar cane and evaporation of water; then follow several phases of refining to get pure sugar crystals. For that reason we can distinguish three main groups of sugar [30]:

| WHOLE SUGAR                                                                              | PARTIALLY REFINED SUGAR                                                                              | COMPLETELY REFINED SUGAR                                              |
|------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|
| Sugar which has not been subjected to any refining, and therefore contains all molasses. | Sugar which has gone through one or few refining stages, but still contains some traces of molasses. | Sugar which has been completely refined to pure white sugar crystals. |

From this description it is evident that sugar which has gone through even one single stage of refining cannot be called *Unrefined*. The correct naming would be *Partially Refined*. With labelling of all sugars – except the pure white one – as *Unrefined* is simply stretching the meaning of the word over its proper place. In fact it is ludicrous to call something *Unrefined* in spite of fact that it has been refined, but not completely refined. It is more logical to call *Unrefined* such sugar which has not been subjected to any refining.

The expression *Raw Sugar* is also very deceiving. ‘Raw material’ is usually referring to ingredients in their raw, unprocessed state. But inside the sugar industry it is also common to use the word ‘raw sugar’ for cane sugar which has been already partially processed in the sugar mills, including first separation of molasses by use of centrifuges. This ‘raw’ sugar is then transported to sugar refineries (as you can see on the picture showing the production of granulated sugar). But then one would expect that after sugar enters the refinery and is subjected to the further refining processes it cannot any longer be called ‘raw sugar’. If you look carefully at the above picture, you can notice that after the second use of the centrifuges in the whole sugar production process (or the first centrifuges in the sugar refinery itself) the expression ‘Raw Sugar’ is still used. Only after the last use of the centrifuges appears the expression granulated sugar (i.e., white sugar).

So it looks as if sugar somehow manages to stay in its raw, unprocessed state till the last moment before it turns into pure white sugar crystals. I just wonder when white sugar will be rebranded into raw sugar, for it is used as a raw material in the factories producing sweets, chocolate and similar things.

Now we will look at the word ‘natural’ in relation to sugar. On the website of *The Sugar Association* one can read (italics mine): [31]

For many people, the term ‘refined’ has lost its original meaning ‘to purify’ and now carries a negative connotation. With sugar the refining process simply removes all impurities and the surrounding plant matter leaving only the pure sucrose... Sugar (sucrose) is a *natural carbohydrate*, found in fruits and vegetables...  
Make an informed choice. Choose *pure natural sugar* – 15 calories per teaspoon.

Here we have an attempt to present white sugar as the natural product because it is extracted from plants and because “cane sugar is neither chemically altered nor bleached to achieve its naturally white color.” [32]

We can compare the above approach to the following description, found on the label of an organic sweetener: [33]

Blackstrap Molasses is a natural sweetener with a rich, bitter-sweet taste. This product is refined at source from freshly harvested organically grown sugar cane. After removal of the (white) crystal sugar, all the natural ingredients of the sugar cane are concentrated into the Molasses. Molasses is widely appreciated as a good source of minerals and vitamins.

So both producers are claiming that its product is natural. Both products are described as refined from sugar cane. But the outcomes are so different: the first product is white crystals; the second product is almost black, very thick fluid. It is evident that we cannot solve this issue by looking only at how the food is processed (e.g., alcohol and opium are also natural products, but this does not yet make them safe for human consumption). For that reason we need to look at how the consumption of them affects the human being. [34]

Here is another example of the questionable claim that sugar is ‘100% Natural’: [35]



The producer's description of sugar used in their energy drink is:  
**Organic Raw FairTrade Sugar**  
is a 100% natural ingredient of Scheckter's Organic Energy Drink.

As we have already seen Raw does not mean whole – that is, 100% natural.

From the above examples it is evident that inside the organic movement we need another way of naming and declaring various types of sugars. The other option is to continue with uncritical acceptance and imitation of the above practices which prevents people understanding the true characteristics of sugar processing.

### 3.4 Quality of Organic Refined Foods

From all my personal experience and knowledge of what constitutes food quality I have no doubt that organic food is in principle better quality than non-organic – though in practice this is not always the case. I always tell people that the quality of any food may vary because of the multitude of factors involved in food production. Any process or substance involved in food production contributes to the final outcome.

Nevertheless ORGANIC REFINED FOODS are in principle better than non-organic ones. But what if we compare the quality of ORGANIC REFINED FOODS with the quality of the rest of organic food?

In the article by James Cleeton [36], one can read (*italics mine*):

The Soil Association conducted a systematic review of the evidence comparing the vitamin and mineral content of organic and conventionally grown food. It was found that, on average, *organic food* contains higher levels of vitamin C and essential minerals such as calcium, magnesium, iron and chromium.

An independent review of the evidence, found that *organic crops* had significantly higher levels of all 21 nutrients analysed compared with conventional produce; including vitamin C (27% more), magnesium (29% more), iron (21% more) and phosphorous (14% more). Organic spinach, lettuce, cabbage and potatoes showed particularly high levels of minerals.

The first thing that presents a problem is the use of ‘*organic food*’ and ‘*organic crops*’ as synonyms. In reality there is an important difference: ‘*organic crops*’ are not subjected to any food processing, while ‘*organic foods*’ can be subjected to food processing, including refining. Therefore it is incorrect to claim that “*organic food contains higher levels of vitamin C and essential minerals such as calcium, magnesium, iron and chromium*”, for this cannot hold true for ORGANIC REFINED FOODS as we saw in the first two topics of this chapter (**3.1 Wholemeal versus Refined Flour** and **3.2 Whole versus Refined Sugar**).

Now, let us make one comparison. We can assume that also organically grown grain crops should in principle have higher levels of trace minerals than non-organic grain crops. In the above article there are no specific numbers for grains, so I will take the above percentages which are referring to all organic crops and compare them with the loss of minerals through the refining of wheat flour (presented in this chapter in **3.1 Wholemeal versus Refined Flour**). Although this comparison does not meet strict scientific criteria, it does illustrate the nature of the problem.

#### Left Column

Increase of particular minerals found in organic food compared to non-organic



## Right Column

### Loss of particular minerals in white wheat flour compared to the whole wheat kernel

|      |           |      |
|------|-----------|------|
| +21% | Iron      | -42% |
| +29% | Magnesium | -86% |
| +26% | Calcium   | -66% |
| +9%  | Potassium | -78% |

This table shows that losses of minerals due to refining are in principle higher than increases due to organic farming. This is especially true in the case of refined sugars where the losses of minerals and vitamins go up to 100%. This means that ORGANIC REFINED FOOD cannot be promoted as advantageous in regard to the vitamin and mineral content, unless we can provide scientific evidence demonstrating such an advantage. To my knowledge such evidence does not exist.

For me the big question is, is ORGANIC REFINED FOOD any better than non-organic WHOLEFOOD, not in the environmental sense, but in regard to the effect on human beings? First I need to say that not all non-organic food is in the same quality group; there can be variations depending on the quantities and number of artificial substances used in food production. Lets say that we compare ORGANIC REFINED FOODS with conventionally produced WHOLEFOODS (for clear distinction between two types see [Organic versus Conventional Food](#) on my website). In my opinion both are bad quality food, but for the different reasons.

Conventionally produced WHOLEFOODS are bad because of low vitality and the remnants of artificial substances used in farming and food processing. They both weaken the human organism, especially its immune system which has to constantly battle against foreign substances in the food.

ORGANIC REFINED FOODS are bad because of the lack of the fibre, essential minerals and vitamins which are necessary for proper functions of the human organism. In my opinion ORGANIC REFINED FOODS are simply compromised too much in regard to their intrinsic quality to be capable of nourishing and sustaining me properly in the long term.

## Conclusion

The main result of refining carbohydrates is denatured, low quality food, stripped of fibre, minerals, vitamins, and other vital nutrients. (ORGANIC) REFINED FOODS are also inferior in regard to taste, smell, and colour (in spite of the fact that many people today really enjoy such foods). This is due to the lack of phytochemicals which are the source of complex tastes, aromas, and colours of the plants.

On the other side we preserve the intrinsic quality of ORGANIC WHOLEFOOD which is due to organic agricultural practices as much as possible. Indeed one can only wonder why one would make such an effort to increase the quality of living soil and consequently the quality of crops, and then, in the case of ORGANIC REFINED FOODS, all these advantages are literally thrown away through costly and unnecessary refining.

## 4. EVIDENCE OF HEALTH IMPACTS

In this chapter we are going to focus on the question about the health impacts of REFINED FOODS in comparison with WHOLEFOODS, regardless of how they were grown. As we could see in the previous chapter, the process of refining carbohydrates causes great loss of fibre and other vital nutrients regardless of whether food is grown organically or not. For that reason all evidence about the health impacts of eating predominantly REFINED FOODS which has been gathered so far, can be regarded valid – maybe with very slight reservation – also for the regular consumption of ORGANIC REFINED FOODS.

For better understanding of the essential difference between consumption of WHOLEFOODS VS REFINED I recommend visiting my website and looking at two fundamental principles:



Of course, for proper holistic understanding one needs to make an effort of looking at things from various viewpoints, as many as possible – in the meantime avoiding the fast forming of judgements, and instead allowing time for the emergence of more comprehensive understanding. Nevertheless, the above fundamental principles of nutrition can offer some insights into the mysterious relationships of food substances and the human organism in regard to our topic.

Now we will take another route, a short journey through some of the available evidence from various authors addressing this issue. The list does not intend to be a comprehensive list of all evidence, but it is my personal choice from the literature which has been available to me.

## 4.1 An Overview of the Existing Evidence

In 1924 Rudolf Steiner, one of the pioneers of the organic movement, gave in a lecture the following explanation in regard to the consumption of carbohydrates. [37]

When someone eats (food which contains carbohydrates) it also goes first into the mouth and then into the stomach and there it is transformed into starch through the effort of the body. Then it passes through the intestines. But in the course of further digestion, in order to get into the blood and from there into the head, it has to be transformed into sugar by the further effort of the body; only then it can go into the head. So all this needs more effort... If I expend energy inwardly – that is, if I transform carbohydrates into starch, and starch into sugar – then I become stronger... It is not a question of filling oneself up with food but of food developing forces in the body... (Grains) also contain carbohydrates but in a form that man can transform into starch and sugar in the best possible way. By means of the carbohydrates in grains he can strengthen himself as far as it is possible. Think how strong country people are, simply because they eat a lot of their own bread which is made from grain... Rather coarse bread is the healthiest food, if one can stand it, but you have to have a healthy body. Then through the transformation of starch and sugar body becomes particularly strong.

With the help of this explanation one can get one of the essential insights into the digestion of carbohydrates, which helps to understand many modern problems of nutrition. Here we see an example how only through an insight into yet hidden laws of nutrition (which I call ‘fundamental principles of nutrition’) one can really understand the large amount of details provided by science and facts of life. Of course, Steiner provided many more such insights, but this one helps to understand why regular consumption of predominantly REFINED FOODS will inevitably sooner or later – depending upon individual constitution and other influences – result in the weakening of digestive forces and consequently in the various manifestations of health problems.

In 1939 Dr. Weston A. Price published his book *Nutrition and Physical Degeneration: A Comparison of Primitive and Modern Diet and Their Effects*. [38] The conclusion of his research was that people from traditional cultures who still eat natural, unrefined food from their local environment have excellent teeth and very good general health. As soon as modern diet – including refined foods such as white rice, white bread, and white sugar – is introduced, physical degeneration began in a way that is evident within a single generation.

In 1946 was published the book *Children's Diet Based on the Conclusions of Modern Nutritional Research* written by Dr. Bircher-Benner. In it he writes: [39]

All sorts of bread made from finely milled flour are unsuitable for children's diet: white bread, rolls, buns, biscuits, rusks... They no longer contain the vitamin and mineral substances of the grain, so that the body cannot use them to build up bone substance. The taking of such foods will with mathematical certainty destroy the balance of the diet... Even if all the other constituents of the diet correspond in every respect to the requirements of the laws of health, they would still be powerless to redress the balance in the struggle against the white flour products. Children will be exposed by such a diet to a hidden form of pre-beriberi...

Wholemeal bread is much more nutritious than white and a smaller quantity of it provides better nourishment than the customary amount of white bread.

In 1956, in the book *Feel like a Million* by Catharyn Elwood, one can read: [40]

We who seek Feel-Like-a-Million health and strong resistance to disease, that our lives may be harmonious and creative, eat by the motto: “NO CALORIES WITHOUT VITAMINS!” Consequently, the following foods are TABOO. They are ‘out’ because they do not completely nourish, having lost something your body needs for excellent health.

*Refined White Sugar* and substitutes and all products that contain them, including; syrups, candy, jams, jelly, marmalade, ice cream, soft drinks, chewing gum (each stick has half a teaspoonful of white sugar.)

*Refined White Flour* and all its products, which include: white bread, noodles, macaroni, spaghetti, cakes, pies, cookies, rolls, doughnuts.

In the introduction to the above book Dr. Fred D. Miller writes:

Your health is largely a result of your daily habits of living. It isn’t what you do once or twice a week that hurts you – it’s what you do twenty-one times a week that will protect you. Your daily food and drink habits, your total food intake must meet all the body requirements, and you just can’t, with safety, leave it to chance. You have to learn certain fundamental facts. You don’t have to become a chemist, biochemist or a nutritionist, but you must learn what food is; what foods are food and what ‘foods’ are foodless; and why processing, refining, milling, pasteurizing, and preserving removes or destroys many essential nutrients which a wise Creator assembled in natural foods for the nourishment of man, and tends to change vital food into foodless food.

In 1962 was published the book *Nutrition in a Nutsbell* written by Roger J. Williams, “a foremost authority on the science of nutrition”. In the chapter *Good Nutritional Advice* he writes: [41]

Although each of us is a distinctive individual with distinctive needs, there is some advice which is applicable to all. For people in general, I will list these pieces of advice under five main headings.

The fourth main heading is:

#### **Avoid too much refined food**

By refined food is meant refined sugar, alcohol, highly milled rice, and to a lesser degree, products made from white flour, even though it is ‘enriched’... For children the restrictions on refined foods should be relatively severe...

The basic reason why we should avoid excessive refined foods may be explained by an analogy to an outboard motor which is designed so that the fuel and the lubricant (oil) are put together in the same tank. The fuel makes the engine go; the lubricant keeps it in condition. The fuel which we human beings consume is carbohydrate, protein, and fat; while the minerals (and) vitamins ... may be likened to lubricants. The enzymes into which they enter are, in a fundamental sense, lubricants ... (which) lubricate chemical reactions and allow them to take place rapidly.

In 1974, in the book *The Saccharine Disease* by T.L. Cleave [42], we are presented with the concept of a single ‘*Saccharine Disease*’ due to regular (over)consumption of REFINED FOODS, with various manifestations in individuals, dependent on their personal make-up. We are told how evolutionary, historical and medical evidence not just supported, but dictated the development of the concept of underlying, primary ‘*Saccharine Disease*’.

In 1975 the book *Sugar Blues* [43] exposed the detrimental effects of refined sugar on human well-being and it became a number one health bestseller with over 1.6 million copies in print. The author William Dufty presented valid arguments for his conclusion that refined sugar is as addictive and poisonous as nicotine or heroin, and responsible for modern plagues, including diabetes, cancer, depression, and obesity. In it we can find the following description of the harmful effects of refined sugar (taken from an article written in 1957 by Dr. William Coda Martin): [44]

The body cannot utilize this refined pure, refined carbohydrate unless the depleted proteins, vitamins, and minerals are present. Nature supplies these elements in each plant in quantities sufficient to metabolize the carbohydrate in that particular plant. There is not excess for other added carbohydrates. Incomplete carbohydrate metabolism results in the formation of 'toxic metabolite' such as Pyruvic acid and abnormal sugars containing five carbon atoms. Pyruvic acid accumulates in the brain and nervous system and the abnormal sugars in the red blood cells. These toxic metabolites interfere with the respiration of the cells. They cannot get sufficient oxygen to survive and function normally. In time some of the cells die. This interferes with the function of a part of the body and is the beginning of degenerative disease.

In the same book there is also an extremely interesting debate before the USA Senate Committee on Nutrition and Human Needs as to whether sugar is a nutrient or antinutrient – that is, a substance that interferes with the utilization or metabolism of any other nutrient (see Appendix 4: White Sugar as Antinutrient).

In 1976, in the book *Taking the Rough with the Smooth* [45], dr. Andrew Stanway has presented the evidence about the link between lack of fibre in modern diet and the occurrence of dental caries, obesity, diabetes, gallstones, coronary diseases, and bowel diseases, such as constipation, bowel cancer, appendicitis, haemorrhoids, etc.

In 1980 was published the book *Diet, Crime and Delinquency* [46] written by criminologist Alexander Schauss. In it he clearly and concisely documents the links between junk food and antisocial behaviour. Among others he presents the evidence of the link between over consumption of white sugar, hypoglycaemia (low blood sugar disease), and the rate of criminal behaviour of those who suffer from this underlying and more hidden health imbalance.

In 1987 the book *Nutrition and Mental Illness* was published. [47] In it Dr. Carl Pfeiffer, a pioneer in the field of nutritional research, reveals his experiences with using nutritional therapies in abating and even overcoming many psychological disorders, from anxiety and depression to phobias, schizophrenia, epilepsy and autism. In his extensive research into the connection between nutrition and mental illness, he has clearly shown that a proper biochemical balance within the body is the key to maintaining good mental as well as physical health. He presents the following reason for the disruptive effect of sugar consumption on this biochemical balance:

#### **Sugar cannot be stored or used without minerals**

Many vitamins and trace elements, including vitamin C, the B complex of vitamins, calcium, potassium, magnesium, zinc, chromium, manganese, and phosphorus, are involved in glucose metabolism and the activities of the endocrine glands. The recently discovered glucose tolerance factor (GTF), which contains chromium, B3, and three amino acids, is essential for the proper functioning of insulin and is necessary for proper carbohydrate metabolism.



The amount of these substances is severely compromised with refining. For that reason his treatment is based on wholefood diet with addition of large doses of essential vitamins, minerals, and trace elements. He had great success rates in his treatments without any use of anti-psychotic drugs.

In 1987, in the book *Nutritional Medicine – The Drug-free Guide to Better Family Health* by Dr. Stephen Davies and Dr. Alan Steward, we can find a summary of the health effects of modern Western diet: [48]

In the West, undernutrition tends not to be a problem... However, malnutrition can occur anywhere as a result of wrong food choice and a dependence on large amounts of heavily refined foods. If nutrient-dense foods such as whole grains and unprocessed foods (including vegetables) are replaced by processed foods that have been stripped of essential nutrients, there will obviously be an alteration of the nutritional status of the person who eats them. The health-food ‘cranks’ of the past who insisted on plenty of whole grains, fresh vegetables and so on have been proved right by modern science... It has been said that many people in the West are overfed yet undernourished. The concept behind this statement is that although our total energy intake is excessive, the quality of food is often so poor that the actual nutrient intake in terms of vitamins, minerals and certain amino acids is inadequate and can produce disease.

In 2000, in the book *Health Hazards of White Sugar*, one can find the following summary of the broad spectrum of health problems related to regular intake of refined sugar: [49]

| Sugar-Related Ailments                                                                                                         |
|--------------------------------------------------------------------------------------------------------------------------------|
| •Addictions to drugs (including alcohol and caffeine) and food                                                                 |
| •Adrenal-gland exhaustion                                                                                                      |
| •Allergies                                                                                                                     |
| •Anxiety                                                                                                                       |
| •Appendicitis                                                                                                                  |
| •Arthritis, gout, rheumatism                                                                                                   |
| •Asthma                                                                                                                        |
| •Behavior problems                                                                                                             |
| •Cancer, particularly breast and colon/rectal cancer                                                                           |
| •Candidiasis and yeast infections                                                                                              |
| •Diabetes (hyperglycemia) and hypoglycemia                                                                                     |
| •Difficulty concentrating, fatigue                                                                                             |
| •Digestive dysfunction, including acid indigestion, bloating, colitis, constipation, diverticulitis and diverticulosis, ulcers |
| •Eating disorders such as binge eating, food cravings and obesity                                                              |
| •Edema                                                                                                                         |
| •Emotional problems, depression, mood swings                                                                                   |
| •Endocrine-gland dysfunction                                                                                                   |
| •Gallstones and kidney stones                                                                                                  |
| •Heart disease, hypertension (high blood pressure)                                                                             |
| •High blood cholesterol, low HDL cholesterol                                                                                   |
| •High triglyceride levels                                                                                                      |
| •Hormonal problems such as high estrogen levels                                                                                |
| •Hyperactivity                                                                                                                 |
| •Insomnia                                                                                                                      |
| •Liver dysfunction including liver enlargement and fatty-liver syndrome                                                        |
| •Menstrual problems such as PMS and menstrual cholesterol                                                                      |
| •Mental illness                                                                                                                |
| •Muscle pain                                                                                                                   |
| •Osteoporosis                                                                                                                  |
| •Parasitic infections                                                                                                          |
| •Premature aging, wrinkles and death                                                                                           |
| •Skin problems including acne, dermatitis, eczema and psoriasis                                                                |
| •Tooth decay                                                                                                                   |
| •Vision problems such as cataracts and near-sightedness                                                                        |
| •Weakened immunity                                                                                                             |

In 2006 *The Whole Grain Diet Miracle* was published by two American doctors. As a preparation for writing the book they surveyed over 80 scientific studies documented over the last 30 years, all supporting the health benefits of whole grains. In the book one can read: [50]

Due to the quantity of research data, the US Food and Drug Administration in 1999 approved a health claim for foods containing whole grains that states: “Diet rich in wholegrain foods and other plant foods and low in total fat, saturated fat, and cholesterol may reduce the risk for heart disease and certain cancers.”

One can imagine that there had to be really strong evidence to force the FDA to approve such a statement. Of course, they somehow ‘missed out’ sugar; nevertheless here we have an official recognition of the negative impact of consuming REFINED FOODS in the form of white bread, white pasta, white rice, baked products made from white flour, etc.

In the Soil Association document *Organic Farming, Food Quality & Human Health: A Review of the Evidence*, we can find the following summary of health problems related to the lack of minerals in our diet: [51]

The common underlying cause of many degenerative diseases is increasingly recognised as chronic multiple micronutrient malnutrition. Dr Helen Fullerton observes:

“Micronutrient deficiencies are only recognised as scientifically proven when they are acute and cause a specific condition or disease (for example scurvy, beriberi, pellagra), but there has been a failure to recognise the symptoms of marginal deficiencies that contribute to reduced fitness and underachievement due to lowered vitality”. Common sub-clinical deficiency symptoms of various nutrients ... include (the following) mineral deficiency symptoms:

- Calcium (deficiency)  
Muscle cramps or tremors, joint pains, insomnia, brittle nails, eczema, nervousness.
- Magnesium (deficiency)  
Muscle twitch, tremors, personality changes, depression, anxiety, irritability, PMS, gastro-intestinal disorders.
- Iron (deficiency)  
Anaemia, constipation, brittle or spoon-shaped nails, tiredness, apathy, reduced brain function, headache.
- Chromium (deficiency)  
Poor glucose tolerance leading to sugar and stimulant cravings, irritability, drowsiness, need for frequent meals, poor weight control.
- Manganese (deficiency)  
Poor glucose tolerance, poor muscle co-ordination, dizziness or poor sense of balance.
- Selenium (deficiency)  
Premature ageing, growth retardation, higher risk of cancer and heart disease, poor fertility.
- Zinc (deficiency)  
Retarded growth, poor wound healing, poor sense of taste or smell, frequent infections, stretch marks, poor fertility.

In 2009, in the book *Suicide by Sugar*, [52] we can find a list of 140 reasons why refined sugar is ruining the health of those who are regularly consuming it. The author also provides a list of scientific medical resources for each of these 140 impacts of regular consumption of sugar (see [Appendix 5: 140 Reasons Why Sugar is Ruining Your Health](#)). Although the author puts all types of sugars and sweeteners in the same category, it is a fact of life that the vast majority of sugar

produced and consumed nowadays is white. For that reason we can rightly assume that the 140 scientific papers listed in the appendix do not prove that the moderate consumption of whole sugar and other natural sweeteners is harmful, but they do prove without any doubt that regular overconsumption of highly refined sugar is detrimental to human health and well-being.

In 2009 David A. Kessler, the man who took on the tobacco industry, published his book *The End of Overeating* where he addresses the obesity epidemics. In his investigation of this topic he visited top universities and research centres in USA and thus presents a great body of scientific evidence pointing to the addictive nature of sugar, salt and fat, which the food industry puts into just everything it sells. The following passage from the book is a kind of summary of the whole book (the ellipses [...] are in the original text): [53]

Just as a compulsive gambler can't place a single bet and feel satisfied, many people can't stop after a few bites of hyperpalatable food. We have become conditioned to seek more reward. The barricades to repetitive behaviour have been toppled. We keep looking for the next big wow.

That's what the (food) industry has engineered, with food built layer upon layer to stimulate our senses. Foods high in sugar, fat, and salt, and the cues that signal them, promote more of everything: more arousal ... more thoughts of food ... more urge to pursue food ... more dopamine-stimulated approach behaviour ... more consumption ... more opioid-driven reward ... more overeating to feel better ... more delay in feeling full ... more loss of control ... more preoccupation with food ... more habit-driven behaviour ... and ultimately, more and more weight gain.

## 4.2 Avoidance and Ignorance of the Evidence

In spite of all available evidence about the negative health effects of eating predominantly REFINED FOODS, we can still find people, organizations, and producers inside the food sector who do not want to confront such an unpleasant truth. There are three main tactics which are used with this aim:

- ◆ denial – that is, “I do not believe that this is true”
- ◆ avoidance – that is, “I do not want to talk about this problem”
- ◆ ignorance – that is, “I pretend that problem doesn't exist”

There might be still some people around who are not really aware of the problem, but not among those who are producing and promoting REFINED FOODS, for they would not use the above tactics if they were not aware of the problem.

Here is an example of a sophisticated form of denial by the leading supplier of sugars in the UK, who supply more than half of the country's sugar requirements: [54]

In today's health-conscious society people are concerned about the increasing obesity epidemic and the impact that food has. *British Sugar* is committed to putting sugar in perspective and explaining the role of sugar in a balanced diet. Sugar is a natural, wholesome food and plays an important part in a healthy balanced diet.

Food is currently an emotional issue and generates much political debate. Everyone has an opinion on what is 'good' for you about particular foods.

The evidence from many years of research is not so straight forward. No food is either good or bad. What matters is our overall eating habits (our diet), the lifestyle and activities we adopt.

At *British Sugar* we would like to address the speculation and commonly asked questions, with answers based on current scientific evidence, to explain the valid role of sugar in a healthy balanced diet.

One could even agree with some claims if they were referring to the consumption of moderate amounts of whole sugar and other types of natural sweeteners; but they are referring to the general term ‘sugar’ – which means mainly white sugar. It is also possible that sugar can be ‘a natural, wholesome food’ if it is produced by traditional processing method, resulting in whole sugar (e.g., Dark Muscovado Sugar, Rapadura, Sucanat, etc). But the vast majority of sugar produced by *British Sugar* is very likely pure white sugar.

*Tate & Lyle Group*, a world-leading ingredients company (which also sells some organic sugars), chooses more emotional approach. [55]

The importance of a balanced approach to your diet is key to a happy and contented relationship with food. That’s why *Tate & Lyle* and Dr. Linda Papadopoulos, a psychologist and author, have gotten together to produce *Taste & Smile*, a booklet full of helpful information and simple, great tasting recipe ideas. Dr. Linda Papadopoulos is a respected psychologist who successfully manages her media and academic roles to ensure that she can give considered and practical advice to the nation.

Linda’s philosophy gives a common sense approach to food:

“The search for happiness is not about cutting out the things in your life that make/leave you feeling guilty; it’s about being able to achieve a sense of perspective. My food philosophy has always been that ‘a little of what you fancy does you good’. Incorporating the foods you like into your diet, rather than denying yourself completely, is important not only to your emotional well-being but to your physical well-being too.”

One might just ask Dr. Papadopoulos: “Have you ever heard about whole sugar? Is ‘a little of’ whole sugar not good ‘to your emotional well-being (and) to your physical well-being’ – not just in someone’s fancy, but in the reality of life?

Here is the last example from the mainstream, one quite twisting form of a denial – starting with the acknowledgement of the difference and finishing with the denial of any substantial difference: [56]

Because of its molasses content, brown sugar does contain certain minerals, most notably calcium, potassium, iron and magnesium (white sugar contains none of these). But since these minerals are present in only minuscule amounts, there is no real health benefit to using brown sugar. The real difference between the two are taste and the effects on baked goods. The bottom line is: nutritionally, brown sugar and white sugar are not much different.

One cannot be really surprised by such examples of ‘not-wanting-to-see-the-truth’ for they are coming from the mainstream food market which is inevitably influenced by corporations whose primary objective is always profit. More surprising and worrying is that there exists the same tendency among members of the organic movement. Amongst them I have not encountered any attempt to deny the evidence; but there are enough examples of avoiding and ignoring it.

The first example from the organic movement is an article published in the magazine *Coronary & Diabetic Care in the UK*. In its conclusion we can read (italics mine): [57]

When the two sides of the argument for organic food are brought together, what is absent from organic food and what is present at higher levels, it becomes apparent that organic food has the potential to make a genuine impact on an individual's health. A *predominantly organic diet* reduces the amount of toxic chemicals ingested, totally avoids GMOs, reduces the amount of food additives and colourings whilst, conversely, *increasing the amount of beneficial vitamins, minerals, EFAs and antioxidants consumed*. Therefore, whilst difficult to prove due to the scale of epidemiological study required and lack of a readily definable 'organic consumer' group, a predominantly organic diet does appear to have the potential to lower the incidence of common conditions such as cancer, coronary heart disease, allergies and hyperactivity in children.

The most striking character of this otherwise very good article is that the author either avoids or is ignorant about the existence of ORGANIC REFINED FOODS. The absence of any reference to the issue of WHOLEFOODS VS REFINED is even more surprising when we see that this article was written for people who work in coronary and diabetic care. Is there not more than enough evidence that eating REFINED FOODS is not beneficial for such conditions? And how can eating predominantly ORGANIC REFINED FOODS increase significantly "the amount of beneficial vitamins, minerals ... and antioxidants consumed"?

An example of avoidance to deal with the existence of ORGANIC REFINED FOODS we can find in *Organic Farming, Food Quality and Human Health*, so far probably the most significant review of evidence in favour of organic food. In the whole document there is only one single, very general statement about REFINED FOODS: [58]

The most significant influence on the nutritional quality of bread and other cereal products is refining. When, for example, wheat is refined to make white flour, bread or pasta, some 50–96 per cent of the fibre, vitamin and mineral contents are removed.

To address the effect of refining on food quality in such a light manner is the same as not addressing it at all.

Ignorance of the problems related to the consumption of REFINED FOODS can be found among plenty of organic producers. I will present just one, for illustration, from a private company which produces a range of organic chocolates, Montezuma's. On the company's website one can read: [59]

In our view, eating something that makes you feel good and makes you happy has to be a good thing, just follow mother's golden rule, "everything in moderation"! If you really want to get down and dirty with the good stuff wrapped up in your Montezuma's chocolate then sure enough you will find antioxidants aplenty, in fact every 100 grams of dark chocolate has about 13,000 ORAC units and blueberries have only 2,400! Of course not everything in chocolate can be claimed as good for you per se, but then again we aren't claiming anything of the sort.

Is this not just another version of Dr. Linda Papadopoulos' philosophy of 'a common sense approach to food'? With an addition: "We maintain our approach of using only the finest ingredients with flair and passion together with our founding principles of 'trading fairly' to bring 'the food of the gods to mere mortals' in the words of one of our co-founders." [60]



After such examples of ‘blindness’ in regard to the negative health effects of regular consumption of REFINED FOODS, it is no surprise that we can find in *Organic Living in 10 Simple Lessons* the following warning: [61]

The birth of ‘unhealthy’ organic movement is a cause of concern. It is easy to see where the problem lies. For example, if your diet is based on refined products (white bread, biscuits and cakes), tinned foods, red meat, sweets, crisps, soft drinks and chocolate, you will not be getting the nutrients you need for health and well-being. As all of these products are now available organically, it is perfectly possible to have an unhealthy organic diet.

We need to recognise that the above presented examples from the organic movement are, in their intrinsic nature, the same as the presented examples from the mainstream food market. Avoidance and ignorance of the all available evidence about health consequences of consumption of WHOLEFOODS VS REFINED are just more refined forms of denial. For that reason they go against the grain of what we should be doing.

## Conclusion

There is more than enough scientific, medical and statistical evidence about the health benefits of wholefoods being rich in fibre, vitamins, and trace minerals. In regard to human health, WHOLEFOODS are without any doubt superior to REFINED FOODS.

There is also more than enough scientific, medical and statistical evidence about the detrimental effects of eating predominantly REFINED FOODS. So far I haven’t heard any evidence about the positive health effects of consuming refined foods on the regular basis. In fact, it could be said that the three greatest negative impacts on human diet in modern time are caused by the introduction of:

- ◆ REFINED FOODS (especially white rice, white flour, white sugar)
- ◆ Artificial mineral substances (fertilisers, pesticides and additives)
- ◆ Genetically modified organisms

While the last two are harmful because they introduce into the human diet artificially-made substances which should not be part of natural food, the first one is also harmful because it deprives human beings from natural substances which should stay as an integral part of human diet.

And while the last two groups of substances are not tolerated – for very good reasons – inside the organic movement, we are at the same time tolerating REFINED FOODS. Can we, members of the organic movement, continue our good work with the existence of such disparity?

And above all, can we tolerate the methods of manipulation of consumers by avoidance and ignorance of the evidence of negative health consequences of regular consumption of REFINED FOODS? Maybe it is time for a truly independent consumer organisation which will expose such unhealthy practices inside the organic sector?

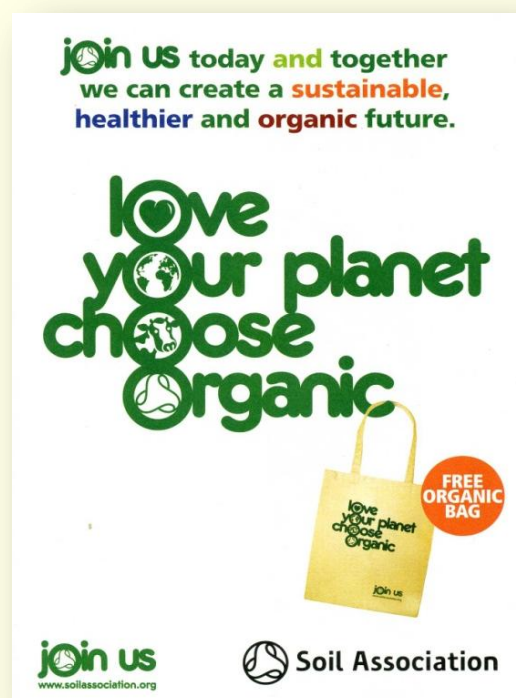
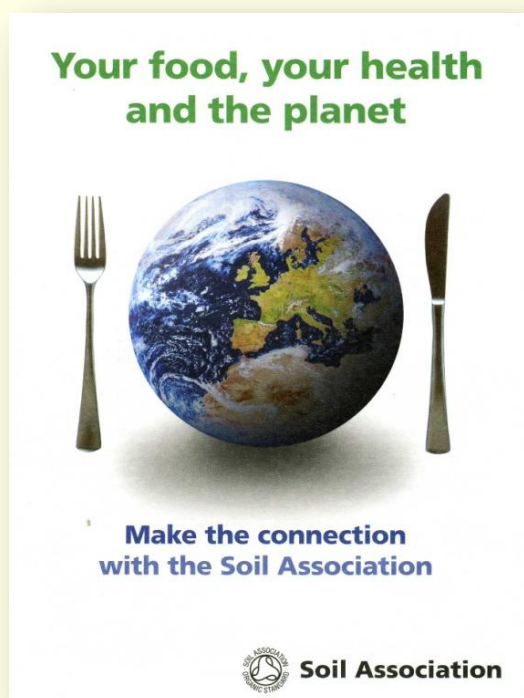
## 5. PROMOTION OF ORGANIC FOODS

Development of organic agriculture and food production is without any doubt the only way forward if we want to sustain humanity in its further evolution. Therefore promotion of all existing and possible benefits of organic foods versus non-organic is more than justifiable.

However there exists a basic condition for promotion of organic foods: this promotion should be based on objective facts and clear information which gives people proper understanding of each particular topic. All statements and viewpoints presented by any representative of the organic movement should be in accordance with all available evidence. The practice of the selection of favourable proofs and the omission of unfavourable ones should not be our way. The ethical promotion of organic foods should be based on the principle of truthfulness as much as it is in our power.

Now we will look at a few examples of the promotion of organic agriculture and organic foods, with special attention to the issue of WHOLEFOOD VS REFINED.

### 5.1 Example from the Soil Association



Here are the front pages of two different leaflets issued by the Soil Association. They both contain evident claims that organic food is healthier than non-organic.

This is one of the most used arguments in favour of organic foods – which make a lot of sense, for the basic aim of organic agriculture is to produce the best quality food possible inside wider geographical, social and economic circumstances. In the article *Organic foods in Relation to*

*Nutrition and Health* by James Cleeton from the Soil Association, we can find another example of promotion of organic food on this basis: [62]

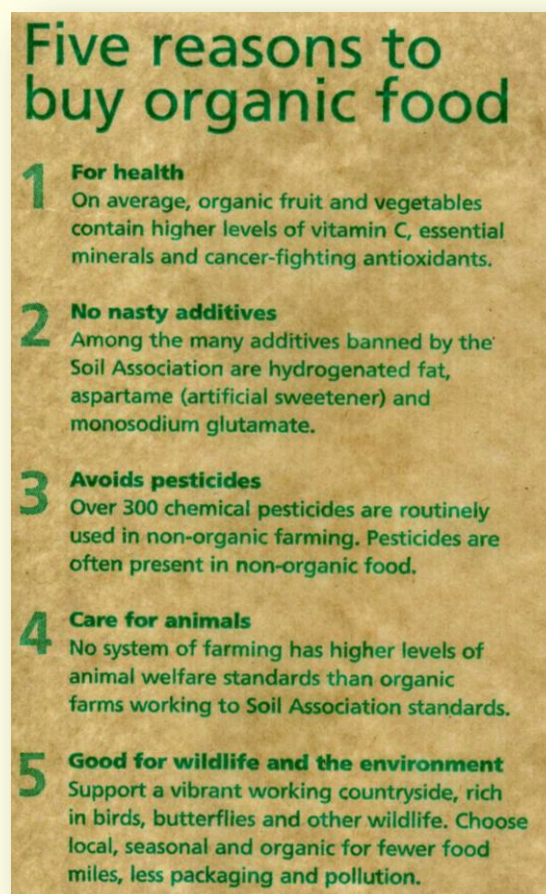
The benefits of a diet rich in vitamins and minerals from fresh food are widely recognised. In an attempt to increase the consumption of fresh fruit and vegetables the British Government launched an initiative highlighting the need for 5 portions of fruit and vegetables a day. Worryingly, UK and US governments' statistics indicate that levels of trace minerals in fruit and vegetables fell by up to 76% between 1940 and 1991. In contrast there is growing evidence that organic fruit and vegetables generally contain more nutrients than non-organic food. It is reasonable to assume that individuals could more readily consume the recommended daily amount of vitamins and minerals by eating more nutritious organic food.

Now, if we have a combination ORGANIC + WHOLEFOOD there is no doubt that such food can be promoted as healthier.

If we have a combination NON-ORGANIC + REFINED FOOD there is no doubt that such food cannot be promoted as healthier.

But the combination of ORGANIC + REFINED FOOD – as has been demonstrated in previous chapters – falls short of the general claims of the health benefits of organic food.

There is another way the Soil Association promotes organic foods: paper bags used in organic shops. On the back side is printed:



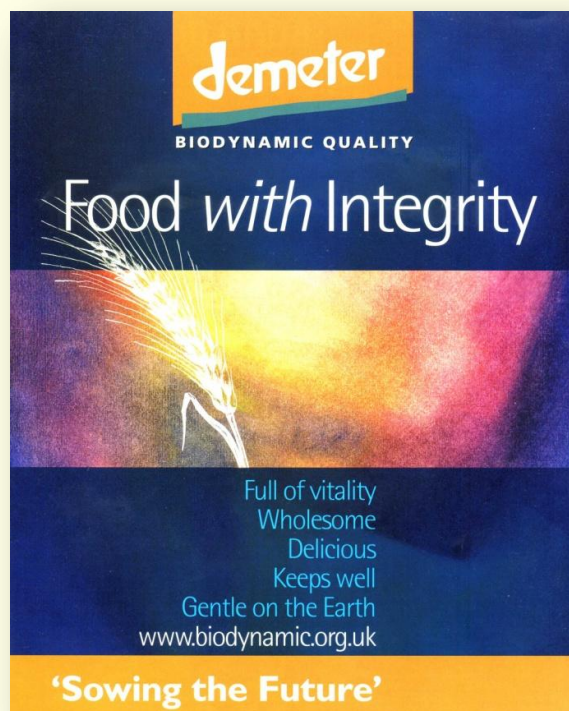
On the front side is the following summary of the above reasons:



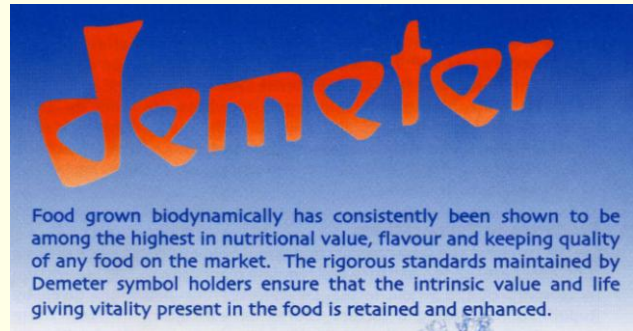
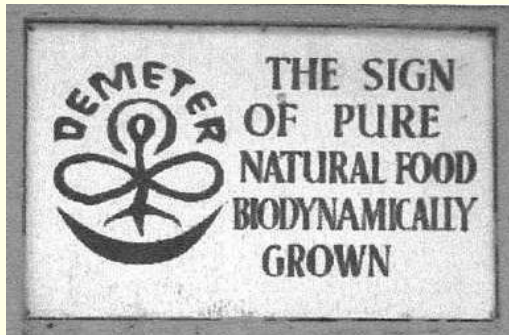
Whenever I see them my reply is: People do not eat just fruit and vegetables, but also grains. I cannot trust the food which has been refined, regardless of whether it is organic or not!

## 5.2 Example from the Biodynamic Association

The leaflets, magazine advertisements and website pages of the Biodynamic (Agricultural) Association [63] are promoting biodynamic products as merchandise of very high quality. Here are a few examples:







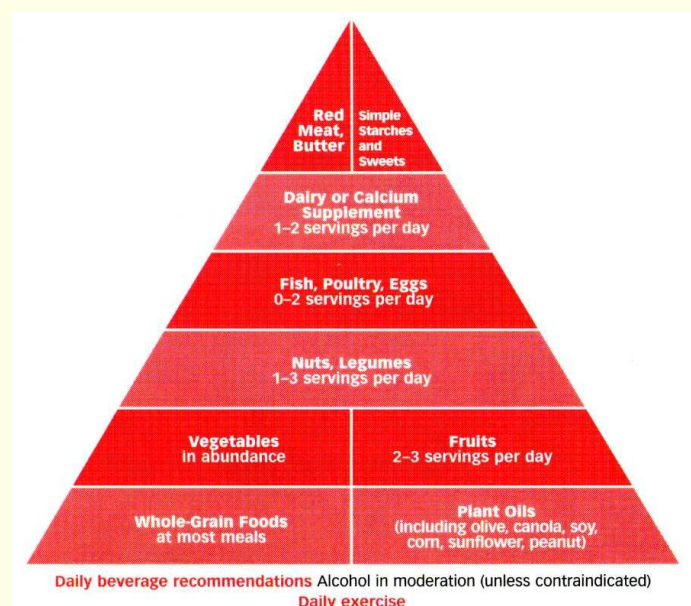
The above claims are certainly true in many aspects of food quality – which I can also confirm from my personal experiences as a consumer. But for the very same reason I cannot put BIODYNAMIC REFINED FOODS in the category of high quality food.

For any product made from white flour and/or highly refined types of sugar is not PURE NATURAL FOOD – except if we accept the logic of those who promote white sugar as ‘pure natural sugar’ [64]. Neither the removal of fibres, minerals, vitamins, and secondary nutrients through the refining process “ensure that the intrinsic value and life giving quality in the food is retained” and in this way “provide nourishing food for the whole human being.” [65]

And finally I have a question: Can any REFINED FOOD be called ‘Food *with Integrity*’? For “the word integrity means: The state of being wholesome, unimpaired (synonyms include words: wholeness, goodness, sincerity, virtue).” [66]

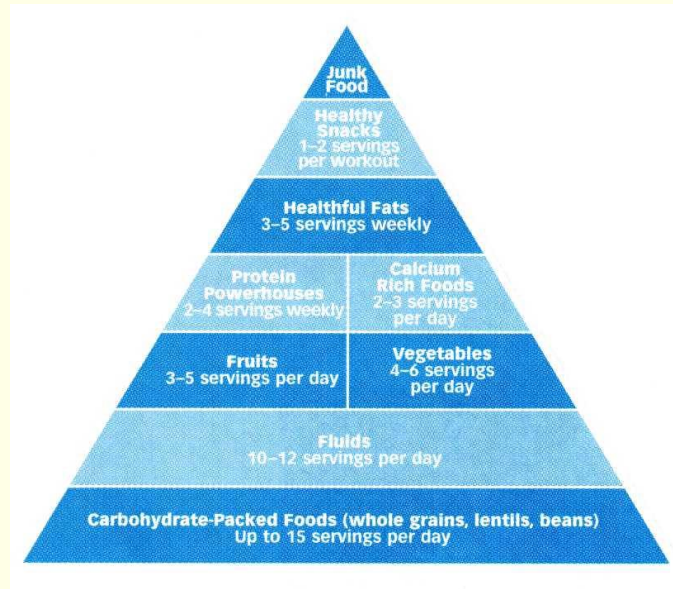
## 5.3 Promotion of Wholefoods

Grains were and still are the staple food of humanity. The average amount of carbohydrate foods is not insignificant in an average diet, for grains and grain products constitute the bottom of many dietary recommendations in the form of food pyramids. Here are three examples:

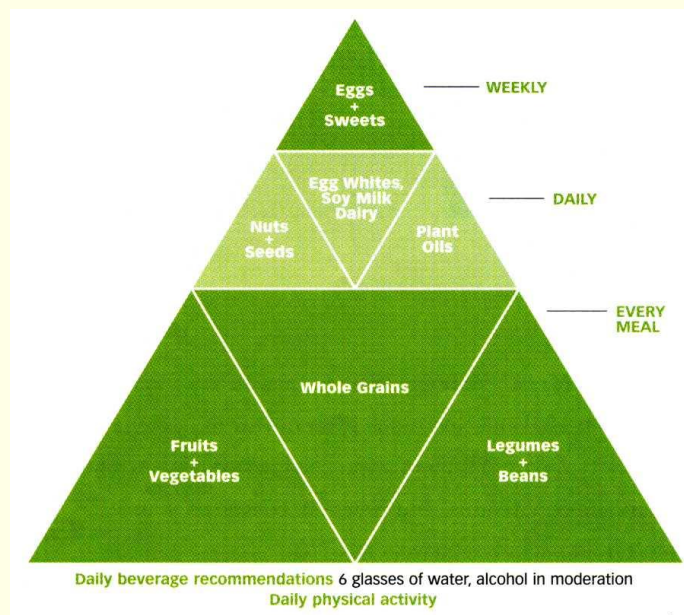


Harvard's Healthy Eating Pyramid [67]





Play Hard Pyramid [68]



Traditional Healthy Vegetarian Pyramid [69]

We can notice that all three food pyramids (two coming from American universities) promote eating ‘whole grains’, and not just ‘bread, cereals, pasta and potatoes (carbohydrates)’ [70] as is common practice in nutritional guidelines given by many governmental health authorities.

There are also some charities which are promoting the consumption of WHOLEFOODS due to scientific evidence about their health benefits. You need just to look in the newspapers. Here is an example from the front page of a daily newspaper: [71]

#### TEN EASY WAYS TO BEAT CANCER

A simple guide suggesting 10 easy ways to avoid cancer could prevent 80,000 cases of the illness in the UK every year, a report by the World Cancer Research Fund claimed

yesterday. Basic changes to what Britons eat and how much they exercise would prevent ... many cases of cancer... Its report advises people to cut out sugary drinks, eat more fresh produce and consume less red and processed meats.

(Among *10 Ways to Beat Cancer* were the following two)

- ☐ Avoid sugary drinks
- ☐ Eat more vegetables, fruits, wholegrains and pulses

Who else is promoting WHOLEFOODS nowadays? Mainly companies who sell them. Here in England it seems that the main promotion is in the names and descriptions of organic shops, as can be demonstrated in this example: [72]



For more examples see: Appendix 6: Organic Wholefood Shops in London

There is another practice of promoting WHOLEFOODS: on the package of products. The example below is from The Weetabix Food Company which specialises in non-organic and organic wholegrain products.



There are more companies inside the mainstream food market which promote WHOLEFOODS. In fact, the promotion of 'wholemeal' and 'whole grain' is a new trend. Below are two examples of this trend: one magazine advertisement, and one product package. [73]



In regard to such developments it would be more than logical to expect the promotion of ORGANIC WHOLEFOODS from the core members of the organic movement. But it seems that there is not much going on in this area.

Such complacency among the core members of IFOAM is enough for serious concern. But even more worrying is that instead of promoting ORGANIC WHOLEFOODS, there exists the promotion of ORGANIC REFINED FOODS. One example is in the leaflet *Make a meal of it – Organic recipes from the Soil Association*:

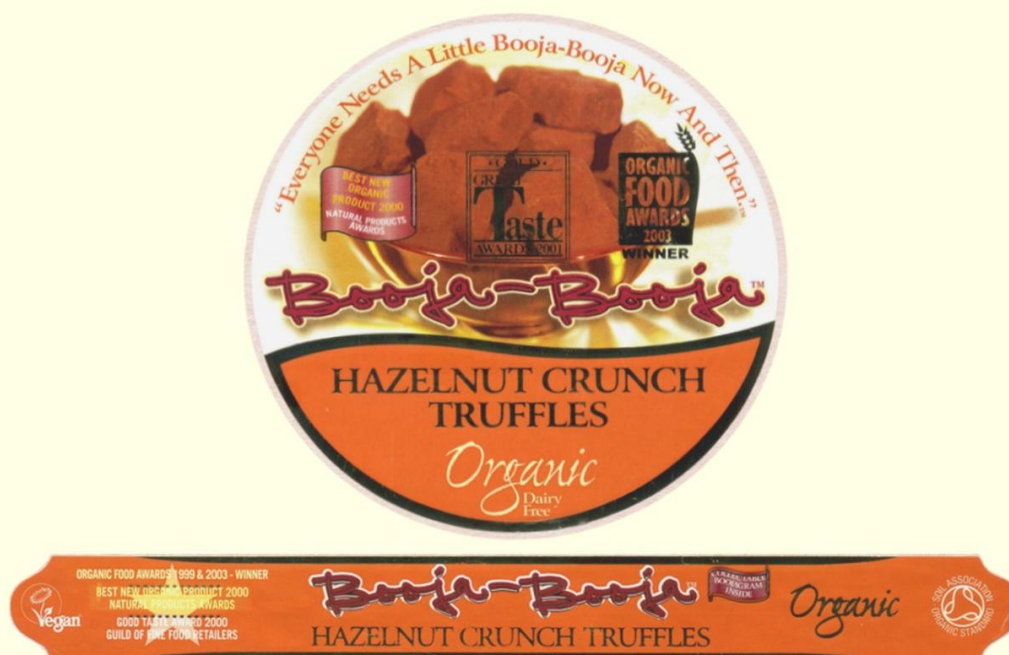


- 50g of butter
- 3 ripe pears, peeled, cored and halved
- 12 whole pecan nuts
- 3 tablespoons of honey
- 175g of self-raising flour
- 100g of preserved ginger, chopped
- 3 eggs
- 100g of soft butter
- 100g of dark brown sugar
- 1 tablespoon of molasses
- ½ teaspoon of ground ginger
- Large knob of root ginger, peeled and grated
- 90ml of ginger wine



So instead of promoting baking with wholemeal flour we have here a recipe with white flour as part of the action to promote organic food consumption. Is this not a message to the customers: ORGANIC REFINED FOODS are all right? Just go for them!

Here is another example of such ‘opposite’ promotion:



Booja-Booja organic chocolate truffles received so far the following awards:

- ♦ Organic Food Awards 1999 and 2003 - Winner
- ♦ Best New Organic Product 2000 – Natural Products Awards
- ♦ Good Taste Award 2000 – Guild of Fine Food Retailers
- ♦ Gold Great Taste Award 2001

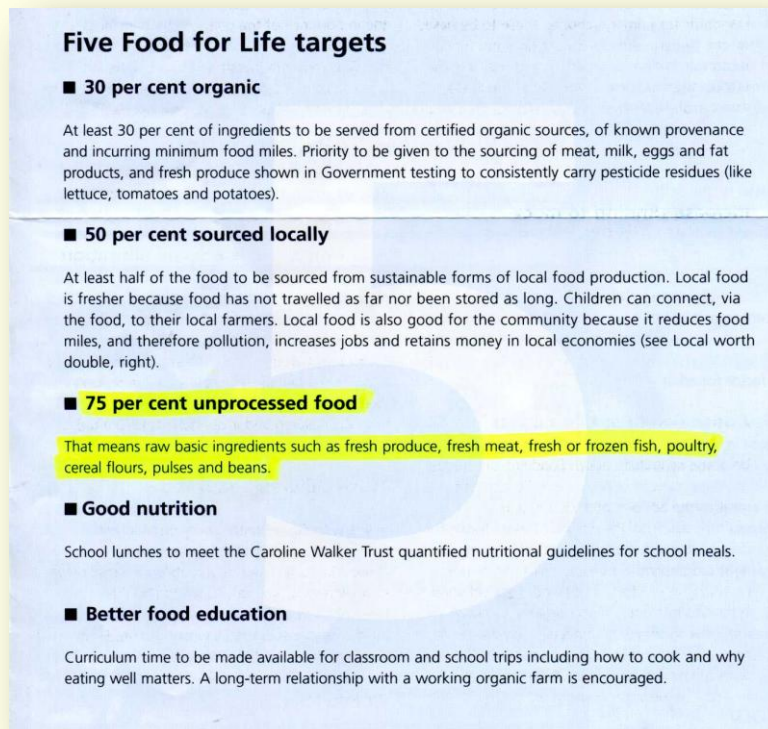
All these awards were given to products which:

- ♦ contain 45% white sugar in the chocolate (the main ingredient of truffles)
- ♦ hide white sugar under the general term ‘sugar’
- ♦ don’t provide the customer with information how much sugar contains the product
- ♦ have been made by people who did not know what type of sugar they were using until my inquiry forced them to find it out (see **7.3 Consumers' Awareness of Health Consequences**)

My personal opinion is that such products do not deserve to be promoted with the help of the organic food awards but should be instead labelled with the warning:

“Eating excessive amounts of white sugar is associated with a multitude of health risks such as diabetes, obesity, heart diseases, cancer, and mental disorders, due to absence of natural minerals and vitamins which are lost through refining and which are essential for proper carbohydrate metabolism.”

I will conclude this chapter with one positive initiative promoting more ‘wholesome school meals’ and consumption of ‘unprocessed foods’ in British schools run by Soil Association – Food for Life: [74]



Although the aims of this initiative are very praiseworthy – especially when one is aware of the kinds of (bad) food that is available on menus in British schools – there are also a few things in the leaflet which are rather surprising. The first thing is: in spite of promoting ‘wholesome school meals’ and ‘unprocessed food’ the whole leaflet does not contain any references to ‘wholefood’, ‘wholemeal’, or ‘unrefined’. There are several references to the problem of childhood obesity, and one reference to “unhealthy amounts of refined sugar”, and another to “increased consumption of processed fatty, salty and sugar foods.”

Beside this we can see that under the group of ‘unprocessed food’ it is not clarified what kind of ‘cereal flours’ school children should eat. It could be wholemeal, brown, or even organic stone-ground white? One can only guess what exactly is meant by such broad expressions.

I just wonder why there is such a reluctance to even utter the word WHOLEFOOD?

## Conclusion

Promotion of organic foods as better quality and therefore healthier than non-organic is seriously flawed because of the existence of ORGANIC REFINED FOODS. If IFOAM members want to continue to use such claims for the promotion of organic food, then they should either stop giving certifications to REFINED FOODS, or otherwise add the following disclaimer to their promotional materials “The claim of health benefits does not hold true for any ORGANIC REFINED FOODS.”

On the other side where are the benefits of consuming WHOLEFOODS being promoted inside the organic movement? Is it not our task to promote what we recognise as good quality food? Is it not an inseparable part of our work to educate people in regard to food and nutrition?



## 6. LABELLING OF ORGANIC REFINED FOODS

Here are presented examples of three quite common practices of labelling ORGANIC REFINED FOODS. In several products you might notice that two, or even all three methods are used, but we will focus in each example on one practice only.

### 6.1 Incorrect Labelling of Organic Sugars

We will start with the practice of incorrect labelling of partially, even highly refined sugar as *Natural* or *Unrefined* or *Raw*.

#### Example 1



Organic Natural Granulated Unrefined Cane Sugar

The natural alternative to white refined sugar

Colour of sugar: Whitish

Amount of sucrose: 99.3%

#### Example 2



### Raw Cane Sugar – Unrefined granulated sugar

Colour of sugar: Whitish

Amount of sucrose: No information

#### Example 3



### Raw Cane Sugar

Colour of sugar: Whitish (see picture from example 6 in 7.3)

Amount of sucrose: No information

Now, the problem is evident. My eyes are seeing three whitish, crystalline, highly refined types of sugar. My visual perception is confirmed by the taste and the smell. The taste of these three sugars is very similar to the taste of white sugar and very different from that of any type of whole or brown sugar I have tried so far. The same is found with the smell: while whole and brown sugar has a rich smell, resembling that of molasses, the above sugars have a very similar smell to white sugar.

Such very loose use of words *Raw – Unrefined – Natural* does not provide customers with clear information about what they really get in the product. Of course, I am here referring to the cases when 'Raw Cane Sugar' is used in products where it is not possible to see what type of sugar is inside. I am sure that many organic customers would be unpleasantly surprised if they knew what 'Raw Cane Sugar' really means.

There is another thing: as a rule organic sugars do not contain nutritional information on the package which enables customers to see how much sucrose the product contains; while the mainstream sugar companies do have such information on their sugars.

It is evident that there exists a need for the clear labelling of organic sugars. This would prevent many customers from consuming refined types of sugar unintentionally. As is the situation now the words *Raw – Unrefined – Natural* are an example of euphemism [75]. These words are used just to make sugars look better, healthier and more nutritious than they really are.

For more examples see: [Appendix 7: Inquiry about Organic Sugars](#)

## 6.2 Hiding Refined Ingredients



The second practice used among organic producers is hiding ORGANIC REFINED FOODS under general names in the list of ingredients. This is the most common and widespread practice used among organic producers, which does not allow the customer to make informed choices of food products and to choose whether they want to consume REFINED FOODS or not.

### Example 1

On the package of Green & Black's Butterscotch chocolate are among the ingredients listed [Organic Raw Cane Sugar](#) and [Organic Cane Sugar](#).

After an inquiry the following nutritional information for [Organic Raw Cane Sugar](#) was given by the producer (average values per 100g):

|                          |          |
|--------------------------|----------|
| ♦ Energy                 | 399 kcal |
| ♦ Proteins               | 0.10 g   |
| ♦ Total carbohydrates    | 99.6 g   |
| ♦ Of which simple sugars | 99.5 g   |

In quite a lengthy reply no information was given about the [Organic Cane Sugar](#). But one can assume that it is even more refined which means that it contains somewhere between 99.5 to 100% sucrose.

The result is: in spite of the fact that both sugars are highly refined types, the consumer cannot know this or he might even fancy that raw cane sugar is unrefined, brown sugar.

### Example 2



Ingredients: Wheat Flour\*, Butter (32%)\*, Sugar\*, Sea salt. (\* organic)

If we now look at the picture of the shortbread itself we can see a typical example of a cookie made from highly refined ingredients – very probably white flour and highly refined sugar. Why did they not write then: White Wheat Flour, Butter, Refined Sugar (with the extraction rate)? Is this really so hard to do? Or maybe it would not look so ‘wholesome’, ‘palatable’ and ‘sublimely’ (words from the text on the package) as it looks in the above list of ingredients?

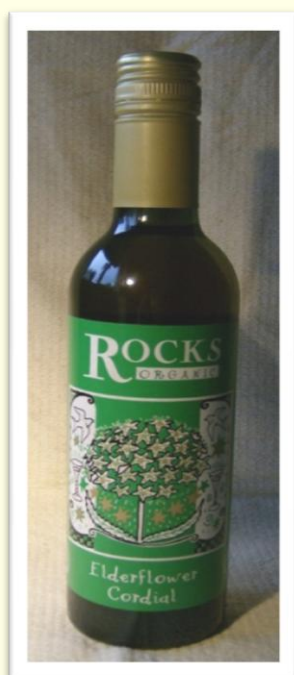
### Example 3



On the package among other ingredients listed are Organic Sugar and Organic Invert Sugar Syrup. After an inquiry the following information was given by the producer:

We use Organic Cane Sugar that has been partially refined and is light brown in colour. There is approximately 5% of added sugar.

The only question is now how much is ‘partially refined’? But it is clear that invert sugar syrup is even more processed than white sugar (i.e., sucrose), for the process of inversion means splitting of sucrose into its two component sugars – into glucose and sucrose. I just wonder how this might affect the inner balance of a person consuming such yogurt on a regular basis.



### Example 4

List of ingredients on the bottle: Organic Cane Sugar, Organic Elderflower Extract (34%), etc.

After an inquiry the following additional information was given by the producer:

- ♦ The sugar used is classed as partially refined
- ♦ It is off white to light yellow/brown in colour
- ♦ The amount of sugar in the cordials varies depending on the fruit used from either 0% or in the 27-50% range.



Because the sugar is listed first it means that the amount of refined sugar must be somewhere between 35 to 50%. I am really interested in how many customers who drink these cordials are aware that up to half of this produce is made from the highly refined type of organic sugar, hidden in the liquid? Are not sugary drinks among the main culprits for the escalation of obesity rates?

## 6.3 Giving False Impressions

Here we are looking at the most sophisticated practice that uses various elements (logos, nice words, descriptions of positive aspects, and attractive images) which in themselves are correct, but nevertheless give a false impression that the product is more whole and natural than it is in reality.

### Example 1



On the back side one can read the following product information:

Muesli - the typical and traditional Swiss meal for breakfast, a light lunch, snack or even evening meal with added fruit, yoghurt and milk went around the world and became world famous. Still today we develop the thoughts and ideas of the famous Swiss Doctor Bircher-Benner, the inventor of Bircher-muesli in the 19th century...



These organic oat pillows bring tradition and modern lifestyle to its peak – the wholesome, natural oat flakes are shaped into crispy pillows for your enjoyment. Try the tasty Swiss organic oat pillows with fruit juice, milk or yoghurt and add fresh fruit to your liking – or nibble them as a healthy snack!

NATURAL ENERGY FROM ORGANIC OATS!

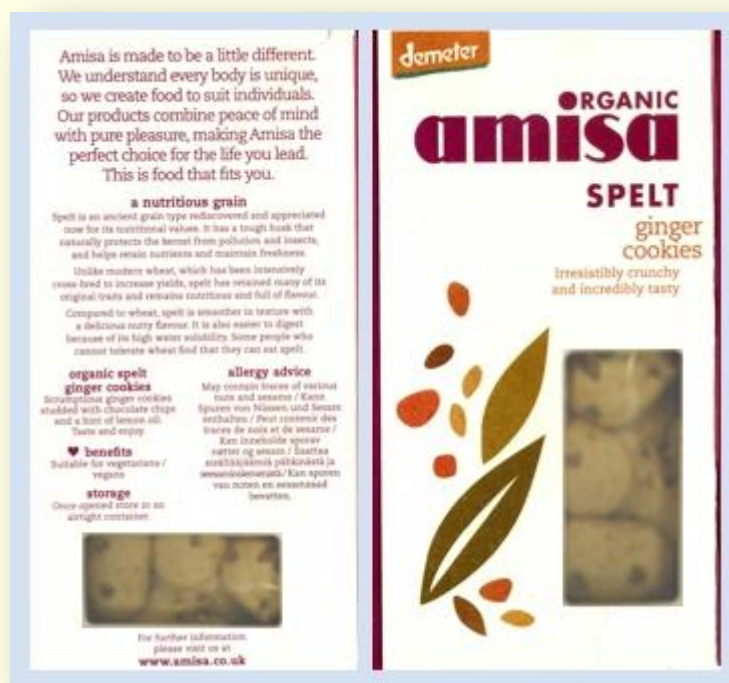
On the list of organic ingredients are: Toasted oat flour (46%), flour (wheat, rye), oat flakes (12%), sugar, barley malt.

After an inquiry the following information was given by the producer:

- ♦ The oat flour and flakes are whole cereals
- ♦ The wheat and rye flour is partially refined (80%)
- ♦ The sugar is crystal sugar, the colour is white
- ♦ Percentage of added sugar 10.5%

I wonder what would be the comment of Dr. Bircher-Benner about this product and its advertising?

## Example 2



On the left is among other things written:

### a nutritious grain

Spelt is an ancient grain type rediscovered and appreciated now for its nutritional values... Unlike modern wheat, which has been intensively cross-bred to increase yields, spelt has retained many of its original traits and remains nutritious and full of flavour.

Among the ingredients listed are Demeter Spelt Flour and Demeter Raw Cane Sugar.

Because the company uses the ‘Whole Grain’ logo on their products whenever they use wholemeal flour, it is clear that the above spelt flour is not whole. From the cookies themselves it is not so evident what type of flour is used; it might be brown or white, or something in between (and for sugar we have seen what Raw Cane Sugar can mean). The above claims are true for the whole grain and the products made from whole spelt flour. So why did the producer not use the whole spelt flour then? Is this the way “to be a little different” and to “create food to suit individuals”?

### Example 3

**DUCHY ORIGINALS**

Pioneering Good Food. From the first Oaten Biscuits baked with organic grain harvested at HH The Prince of Wales' Home Farm, our sustainable ethos and approach to producing premium quality, great tasting food using only wholesome, natural ingredients has seen Duchy Originals grow to become one of the UK's leading organic food brands.

Faithful to a century-old family recipe, our all butter golden rounds are slow baked in the heart of the Scottish Highlands using only a handful of naturally delicious organic ingredients such as pure creamery butter, raw Demerara sugar and stone-ground flour made from Maris Widgeon wheat grown on Duchy Home Farm for a rich, smooth shortbread with a crisp, crumbly texture.

**DUCHY ORIGINALS' GOOD FOOD CHARTER**

We are committed to making sure that every one of our products is good, does good, and tastes good, so that everything we grow and make lives up to the standards you expect from us.

We only use raw materials from specified producers, chosen for their quality and ethical standards, and that make no organic claim.

We have traditional crop rotation and animal husbandry, and we are helping to protect the land and its biodiversity.

We have partnerships with producers who uphold traditional skills and respect the quality of the products they make.

Read our charter in full at [www.duchyoriginals.com](http://www.duchyoriginals.com)

FOR THE LATEST NEWS FROM DUCHY HOME FARM, DELICIOUS RECIPES TO INSPIRE YOUR COOKING AND SPECIAL OFFERS, VISIT [www.duchyoriginals.com](http://www.duchyoriginals.com)

**NUTRITIONAL INFORMATION**

| TYPICAL VALUES            | Per 100g | Per Biscuit (11.5g) |
|---------------------------|----------|---------------------|
| ENERGY                    | 2152 kJ  | 248 kJ              |
|                           | 510 kcal | 58 kcal             |
| PROTEIN                   | 5.5g     | 0.6g                |
| CARBOHYDRATE              | 60.9g    | 7.0g                |
| of which sugars           | 23.0g    | 2.6g                |
| of which starch           | 38.0g    | 4.3g                |
| FAT                       | 27.5g    | 3.1g                |
| of which saturated        | 17.0g    | 2.0g                |
| of which mono-unsaturated | 7.0g     | 0.8g                |
| of which poly-unsaturated | 1.0g     | 0.1g                |
| FIBRE                     | 1.0g     | 0.1g                |
| SODIUM                    | 0.27g    | 0.03g               |

**11 ORGANIC HIGHLAND ALL BUTTER SHORTBREAD**  
WRAPPED FOR FRESHNESS AND TO MINIMISE FOOD WASTAGE.

ORGANIC INGREDIENTS: WHEAT FLOUR, BUTTER (SALT, SUGAR, SEA SALT), DEMERARA SUGAR, STONE-GRINDING AGENT (AMMONIUM BICARBONATE)\*.

\*APPROVED NON-ORGANIC INGREDIENT.

CONTAINS: WHEAT, GLUTEN & MILK.  
NOT SUITABLE FOR PEOPLE WITH ALLERGIES.  
STORE IN A COOL DRY PLACE FOR BEST BEFORE. SEE BASE OF PACK.

**150g e**

DUCHY ORIGINALS AND THE PRINCE OF WALES' HOME FARM ARE REGISTERED TRADEMARKS OF DUCHY ORIGINALS LTD.

**Mixed Sources**  
Product groups from well-managed forests and other controlled sources.  
[www.fsc.org](http://www.fsc.org) Cert no. TT-COC-002309  
© 1996 Forest Stewardship Council

**ORGANIC HIGHLAND ALL BUTTER SHORTBREAD**

Every time you choose Duchy Originals, it is reassuring to know that all of our profits are donated to the Prince's Charities Foundation. So not only are you enjoying a delicious product, but you're also helping to make a difference. So far we have given £6.5 million to the Foundation which helps support over 100 different causes and projects in the United Kingdom.

**THE PRINCE'S CHARITIES & THE PRINCE'S CHARITIES FOUNDATION**

In the text on left side is written:

Faithful to a century-old family recipe, our all butter golden rounds are slow baked in the heart of the Scottish Highlands using only a handful of naturally delicious organic ingredients such as pure creamery butter, raw Demerara sugar and stone ground flour made from Maris Widgeon wheat grown on the Duchy Home Farm for a rich, smooth shortbread with a crisp, crumbly texture.

Notice how many details are given about the wheat, but not any information about the type of flour. In the frame below is Duchy Originals' Good Food Charter with the seal Pioneering Good Food. In the charter we can read:

We are committed to making sure that every one of our products is good, does good and tastes good, so that everything we grow and make lives up to the standards you expect from us.

In the list of ingredients is (organic) wheat flour. After an inquiry the following additional information was given by the producer:

The flour used in this product is organic white biscuit flour at a level of 50-60%.

So according to this company white flour and refined sugar are ‘naturally delicious organic ingredients’ and shortbread made from them not only tastes good, but also ‘does good’ to consumers’ wellbeing.

I doubt the original highland shortbread was really made with refined ingredients. The fact that it is made from a 100 years old recipe is the very proof of this, for “by the end of the eighteenth century nearly all the population in Britain were eating white flour” [76]. Britain was also the first country where availability of refined sugar improved due to the sugar production in their colonies in India (and later in the Western colonies) to such a degree that white sugar became available also to the lower classes of society. This means that for a true Scottish traditional recipe one should go further back in time before the introduction of refined carbohydrates into modern diet.

Beside this there is no way to survive the harsh natural conditions of the Scottish Highland with such cookies. Just try them – the main effect of each biscuit is just to make you wish for another one. And it does not make one feel really nourished both in body and soul. Is this an example of [Pioneering Good Food](#)?

#### Example 4



The first thing which is very striking is the logo [WHOLE EARTH](#). Bellow in white letters is written:



Delicious Clusters of Organic Oats with Redcurrants, Strawberries and Raspberries, the perfect cereal for fruit lovers. With 3% red fruits this scrumptious cereal is an indulgent and yummy way to start your day!

On the back side is written:

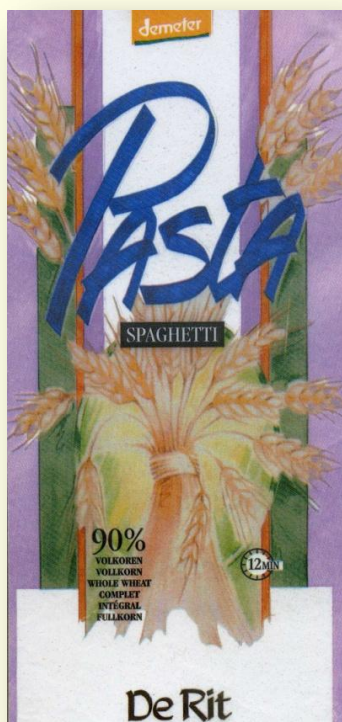
The Whole Earth Story began in 1967 when Craig Sams and his brother Gregory opened Seed, a pioneering, vegetarian, organic and macrobiotic restaurant in Paddington, London, (etc).

But on the list of ingredients we can find second Sugar (after 59% Oat Flakes), without information about the type and the amount of sugar. After an inquiry the following additional information was given by the producer:

Whole Earth Red Fruit Crunch: The 15.5% sugar used is 100% refined white sugar with no molasses, which is derived from sugar beets and partly from sugar cane.

Now I would like to ask the people who are running the company if **WHOLE** and ‘macrobiotic’ [see Appendix 2: Macrobiotics Stand to Wholefood vs Refined] are compatible with **white sugar**? Is this their way to get ‘the perfect cereal for fruit lovers’?

## Example 5



Here we have three types of pasta. The first product is labelled as **90% Whole Wheat Spaghetti**, the second as **Semi Wholewheat Spaghetti**, and the third as **Semi Whole Spelt Penne**. At first glance it looks correct and a fair description of the products. But in all cases the customer gets a false impression in regard to the wholeness of the pasta. The graph in 3.1

**Wholemeal versus Refined Flour** shows that at 90% extraction rate we lose about 65% of fibres. There is a very distinct difference between statements:

90% Whole Wheat Spaghetti or 'Spaghetti with 65% less fibre'

Beside this the combination of the words 90% Whole Wheat and Semi Whole Wheat is a contradiction in itself; it can be either 'Whole Wheat (Wholemeal)' spaghetti or '90% Brown' ('Semi Brown') spaghetti. [77] The way the producer is putting it is the same as saying *semi whole circle*. A circle must be whole or it is not a circle any more! So it should also be when naming whole grains. Otherwise words are being degraded and in due time will lose their proper meaning.

### Example 6



This icing sugar is declared to be made 'from raw cane sugar'. We have seen in the first group of examples that this is not correct labelling of sugar. But there is another reason why this product is placed in this group. On the package is given the following short description of its method of production: [78]

In a special sugar mill in Germany the raw cane sugar is being finely ground. In this way it gets a light colour.

Now it is true that the colour of ground sugar gets lighter than the colour of crystals. But they do not tell to the customer that the colour of 'raw' cane sugar which has been ground was already whitish. So a combination of labelling sugar as 'raw' and the above description gives a false impression that the white colour of icing sugar made from raw (i.e., brown) sugar is normal. As you can see on the picture below, it is not.





Left: Rapadura, an example of real raw cane sugar (for colour comparison)

Middle: Demeter Raw Cane Sugar (see example 3 from 7.1)

Right: Naturata icing sugar

## Conclusion

The guiding principle of labelling any organic produce should be to provide consumers with clear and correct information about the product and its ingredients, as is explained in the brochure *From farm to fork – Safe food for Europe's consumers* (italics mine): [79]

People want, and have a right, to know what they are eating. Food labelling rules recognise that right. The fundamental principle of EU food labelling rules is that consumers should be given all essential information on *the composition* of the product, *the manufacture*, methods of storage and preparation.

Producers and manufacturers are free to provide additional information if they wish, but this must be accurate, not mislead the consumer and not claim that any foodstuff can prevent, treat or cure illness.

IFOAM standards recommend that “product labels should identify all ingredients, *processing methods*, and all additives and processing aids” [80] (italics mine). The Soil Association also encourages their licensees “to provide information on the label which will allow customers to make informed choices about which product to buy.” [81] And in the Demeter standards we can find the following statement (italics mine): “An honest product is one whose composition and life history is transparent for all traders and consumers to see. *A clear declaration is the first step.*” [82]

From the above presented examples it is evident that the practices of labelling ORGANIC REFINED FOODS are not in accordance with these guidelines. The question is: Do we want to tolerate such methods or do we want to give customers what is their lawful right – clear information about what they buy? In my opinion the top priority is to take seriously the law and stop the above presented practices of misleading consumers as soon as possible.

Another option is to wait for a more unpleasant stimulus to sort out this unhealthy practice, such as a court case against an organic company for not complying with the laws regulating consumers' rights. Can you imagine the harm to the whole organic movement if this was to happen?

## 7. CONSUMERS' FREEDOM OF CHOICE

In all the years since I first encountered the existence of ORGANIC REFINED FOODS I have heard one single argument in favour of their existence, which I can summarize in the following way: “Consumers demand ORGANIC REFINED FOODS. We need to respect their freedom of choice and give them what they ask for.” I have heard such arguments mainly by producers and retailers of organic food. For that reason we need to look at this argument more precisely to see if it stands up to ‘cross-examination’ from some other perspectives.

### 7.1 Consumers' Perception of Organic Food

In general “most consumers are of the opinion that organic food contains fewer undesirable ingredients, has more primary and secondary nutrients and is in some way more vital and healthy.” [83]

But there is even more to this. The organic shops have established a special image of an almost sacred space where one reconnects with mother Earth in a loving relationship: [84]



But on their shelves one can find – beside many ORGANIC WHOLEFOODS and non-organic WHOLEFOODS – also many ORGANIC REFINED FOODS. Their front image is not congruent with what is inside. It makes customers believe in something which does not yet exist in its full reality. One of the basic aims of marketing strategies is to paint beautiful pictures, as natural as possible. But the reality behind is not always as it is shown on the ‘package’ – as was clearly demonstrated in the previous chapters. We need to learn to see both, the strengths and the weaknesses of the organic movement, its opportunities and threats. Otherwise we are dealing with illusions. For that reason we need to recognise the following danger: [85]

Any attempt by the food industry to compromise the integrity of organic food by adulteration, the wrong kind of processing, or any other cheap and cheerful shortcut, is certain to undermine consumer confidence in the quality and value of what they are buying.

In regard to WHOLEFOODS VS REFINED there are just too many such compromises. It seems to me that producers, processors, retailers, promoters, as well as consumers of organic food are not aware enough of what they are doing with production, promotion and consumption of

ORGANIC REFINED FOODS. If we want to sell 'honest food' which is really 'Healthy Whole Organic Natural' then we should first close the gap between the principles of organic food production and what organic companies are producing.

Then those who sell them should look at the disparity between their advertising images and what is on the shelves of their shops. Then we could hope that the perception of organic food by those who still have an original understanding of it and the perception of those who have adopted a more liberal approach might be reconciled.

## 7.2 Availability of Organic Wholefoods

First it must be recognised that the organic movement has improved the range and availability of WHOLEFOODS significantly. Probably without the existence of the organic movement, and especially new groups of consumers, with their demands for WHOLEFOODS, there would not be so much WHOLEFOOD available in the shops today.

But from my personal experiences connected with the journey from Slovenia, to the Netherlands, and to England, it seems to me that the range of ORGANIC REFINED FOODS is expanding, while at the same time I have great difficulties in getting particular products from the range of ORGANIC WHOLEFOODS.

Here are two pictures taken in a wholesale shop in Sheffield [86] that provide some evidence in support of these observations:



Shelf with organic sugars



Shelf with non-organic sugars

It is interesting to see that the range of non-organic sugars is mainly from the brown spectrum, while the range of organic sugars is mainly from white spectrum. In fact, the only whole sugar available in the whole shop was non-organic *Dark Muscovado Sugar*. These two pictures illustrate the present situation with the availability of organic sugars in UK: it is easier to get all kinds of organic refined sugars – slightly, moderate or highly refined ones – than whole sugar. In my present place I can buy only Rapadura and Coconut Palm Sugar.

Beside the difficulty of getting organic whole sugar is another fact which does not contribute to bigger demand: organic whole sugar is more expensive in comparison with other organic sugars. For example, in the local organic shop, they have three types of organic sugar on the brown spectrum: Demerara (500g) for £1.48; Rapadura (500g) for £2.99; Coconut Palm Sugar (250g) for £4.95. It is evident what an average customer will choose from such an offer. The reason for the high prices of whole sugars might be because of low demand; but then how can one sell more whole sugar if other organic sugars are considerably cheaper and at the same time incorrectly labelled as ‘Natural-Raw-Unrefined’?

Another example is with the availability of ORGANIC WHOLEFOODS, such as biscuits, cakes, or any other type of sweet products where the flour is used. The majority of these products contain either refined flour or refined types of sugars. 100% ORGANIC WHOLEFOOD confectionery is an extreme rarity indeed! Now I wonder if I am one of the very rare breed of customers who want to consume ORGANIC WHOLEFOOD confectionery or is it that my freedom of choice is not taken as seriously as it is in the case of those who ask for ORGANIC REFINED FOODS?

On top of this I need to examine very carefully (using a magnifying glass) the labels, to avoid any hidden refined ingredients. With the help of this method I have found so far very few ORGANIC WHOLEFOOD chocolate products (i.e., made exclusively with whole sugar): [87]



There might be a few more around, but even in such cases one must admit that there are not a lot if we take into account that there might be several hundred organic chocolate products on sale. Probably, as I can see in the shops, there are more non-organic chocolate products made without any refined sugar than organic ones.

So what is going on with the offer of ORGANIC WHOLEFOODS?



## 7.3 Consumers' Awareness of Health Consequences

One cannot talk about freedom of choice if people are ignorant about the health consequences of their own choices. Therefore it is not surprising that among the seven deadly threats to organic integrity [88], presented by Patrick Holden, was also placed consumer ignorance. The author's opinion was that "this is the greatest enemy of all." I agree with him on this point, especially in regard to WHOLEFOODS VS REFINED, for I doubt that people would still consume them if they were really aware of what damage they were causing to themselves.

There is more than enough evidence that people just do not take seriously enough the health risk linked with the regular consumption of REFINED FOODS, even if they are organic. But consumers are not the main people to blame for such situation, if even producers, processors, retailers, and promoters of organic foods demonstrate such ignorance. I presented a few examples in the topic [4.2 Avoidance and Ignorance of the Evidence](#). Here is another one.

When I was investigating the types of sugar labelled in very general terms, such as 'sugar' or 'cane sugar' (see [Appendix 7: Inquiry about Organic Sugars](#)), I sent a letter also to the Booja-Booja Company. The first answer I received from them was:

Thank you for your interest in our products and your enquiry. All that we know about the sugar is that it is a refined cane sugar that is part of the chocolate we buy and use as an ingredient in our truffles. What we receive on delivery is chocolate and not sugar. I am sorry that we could not give you further details.

After my second enquiry where I suggested they ask their provider of chocolate for the further details I got the following answer:

The product specification states that the sugars in the chocolate are sucrose 45% and cacao content of 55%. My understanding is that sucrose is white.

When one encounters a person responsible for public relations who doesn't know what kind of ingredients her company uses in their products, then one can ask: How can I as a customer of organic food know what I am consuming if people who are producing them don't know?

When I was trying to gather information from producers in the above mentioned investigation I had really great difficulty in getting clear answers. For example, I asked them to explain if sugar was subjected to any refining and what its colour was. Many answers I received didn't help much in gaining a better understanding of what I consume. For example: "The raw cane sugar used in the production of Crazy Jack Marzipan has undergone some processing and is medium brown in colour."

It seemed to me that producers themselves were not willing to know what they are really doing. How else can I explain the fact that I have not received answers from seven companies out of sixteen. And even when I sent another letter to those seven, I still didn't get any reply from three companies (for more precise information about the difficulties in obtaining information from organic producers see [Appendix 7: Inquiry about Organic Sugars](#)).

I think that we cannot expect a rise in awareness in regard to the negative health consequences of the consumption of REFINED FOODS among customers if even those people who use such ingredients in their products somehow try to avoid the challenging questions.

## 7.4 Special Demands of Consumers

Because of the spread of various eating styles and health problems related to nutrition we can nowadays find in shops special groups of food products which serve the particular specific needs of consumers. For example:

- ◆ Dairy Free range for vegans
- ◆ Gluten Free range for people with celiac disease
- ◆ Low Fat range for those who are overweight
- ◆ Etc.

When my friend and I started a small-scale bakery in Slovenia we made everything from 100% WHOLEFOOD ingredients only. But as soon we were confronted with demands from some elderly customers who had difficulties in digesting our products, our response was to introduce some products made from a mixture of half wholemeal and half 85% brown and a very few products from 85% brown flour only. The majority of our product was still 100% WHOLEFOOD. But we had something for the special needs of a particular group of our customers. However we had never even considered using white flour.

On the basis of these experiences I acknowledge that there are people with specific needs in regard to carbohydrate foods. But these needs have to be addressed in a therapeutic manner. We cannot continue on the same path which has caused the weakening of digestive forces. Changing this is possible only if people improve their eating habits, which is not the case if people simply continue consuming REFINED FOODS, even if they are organic.

We are here confronting the huge and responsible task of helping all those who need to improve their diets. Human beings should be capable of digesting WHOLEFOODS. [89] If they are not then we need to understand the reasons behind this and act therapeutically. This is what the customers are really expecting from us or – in other words – these are their real demands, even if they might not be so conscious of them. Are there among our customers people who don't want to be strong?

## Conclusion

One could use the argument about freedom of consumer's choice only under specific basic conditions. These conditions are:

- ◆ Honest 'labelling' of all organic products, including ORGANIC REFINED FOODS [90]
- ◆ Bigger range of WHOLEFOOD products on organic shelves
- ◆ Separate shelves with ORGANIC REFINED FOODS, marked similar as Gluten Free, etc.
- ◆ Raising awareness about the health hazards of REFINED FOODS and the health benefits of eating WHOLEFOODS on the basis of independent holistic research [91]

Only under such conditions could one talk about real freedom of choice in regard to WHOLEFOODS VS REFINED. Real freedom of choice can exist only if people understand what the consequences of their choices are. For that reason our primary task is to educate organic farmers, food processors, traders, and consumers about the real significance of WHOLEFOODS for the health and overall development of the human being. The evidence presented in this report is proof for the need for such ongoing education.

## SUMMARY

The story of the inception, growth and development of the organic market is a fascinating example of how human beings can bring positive changes to the world against great forces of opposition. But on the other hand there is no time for celebration – there is still a tremendous amount of work to do and many things to improve. In this report I have concentrated on one issue which we need to be more conscious about. I have looked at ORGANIC REFINED FOODS from many, but not from all possible perspectives (mainly because of limitations of time and finance). But, I think I have gathered enough evidence to arrive at the following final conclusion:

On the basis of all evidence presented in this report we can call ORGANIC REFINED FOODS **ORGANIC JUNK FOOD**. Therefore it should be obvious that their existence is one of the biggest weaknesses of the organic movement. The production of ORGANIC REFINED FOODS is seriously undermining one of the fundamental goals of the organic movement – to produce healthy food which can nourish and sustain the whole human being. For the word ‘Integrity’ means ‘Wholeness’. And wholeness is the state of being wholesome. It is no wonder that the words ‘Whole – Healthy – Holy’ have the same root. But this root of organic movement has been seriously compromised due to lack of integrity of those members who have accepted the existence of ORGANIC REFINED FOODS as the new ‘normal’.

For the word ‘Integrity’ means ‘Wholeness’. And wholeness is the state of being wholesome. It is no wonder that the words ‘Whole – Healthy – Holy’ have the same root.

I hope that the organic movement has enough wisdom and power to become **WHOLE** again, as the pioneers of the organic movement were dreaming about and fighting for. If we reach a stage in the organic movement when the word ‘Wholefood’ is synonymous with ‘Organic’ and when the word ‘Organic’ is synonymous with ‘Wholefood’, then it will be as it was in the beginning.

Until that happens I cannot do otherwise than to agree – on the basis of the evidence presented in this report of my investigation – with the opinion of one of the opponents of the organic movement who said: [92]

*Just don't think that eating organic food will make you healthier!*

The greatest threat to organic integrity is not coming from outside – although I do not deny the existence of outward opposition to the organic movement – but from inside, from those members who do not understand that we cannot make compromises with the core values and quality standards of the organic movement.

I have even encountered opinions which I can summarize in the following way: “Now when organic food finally became big business we need to give up some of the values from the pioneer stage and get into real business. In the pioneer stage were people just much too impractical and too idealistic.” Such an attitude can bring forward even such statements as one, given to defend the purchase of the organic company Green's & Black's by Cadbury: [93]

There is a fine line between ethics and profits. You can have all the ethics in the world, but if you've got no profits you have no future.

My reply to such upside down logic is: There would be nothing to sell (and for that reason no profit to make) without the people who started the organic movement in the first place. But they started it out of ideals and ethical values, with little money and against the mainstream profit mentality. Maybe they were unprofessional in many ways, but they were following their own dreams. The origin of all positive changes in society is in new ideas and ideals, never in money itself. Or, as one of the pioneers of the organic movement, Rudolf Steiner [94], pointed out:

Evil can only be conquered by a high ideal... A man without an ideal is weak and powerless. In the life of man ideals play the part of steam in an engine – they are the driving force.

Only such power combined with unconditional truthfulness can confront our own weaknesses and overcome them. I hope that there is still enough of such power living among the members of the organic movement – for we will need it in the challenges of the coming times.





## NOTES

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### HOLISTIC APPROACH TO NUTRITION

- 1 From a quote of Rudolf Steiner which refers to a holistic approach to health and illness, used in my forthcoming part of the website.
- 2 For the basic description of the nine aspects go to my website [www.newfoodculture.info](http://www.newfoodculture.info) and click on the same picture.

### 1. CORE VALUES OF THE ORGANIC MOVEMENT

- 3 Fritjof Capra (born February 1, 1939) is an Austrian-born American physicist. He is a founding director of the Center for Ecoliteracy in Berkeley, California, and is on the faculty of Schumacher College. He is the author of several books, including *The Tao of Physics* (1975), *The Turning Point* (1982), *Uncommon Wisdom* (1988), *The Web of Life* (1996), and *The Hidden Connections* (2002).
- 4 Fritjof Capra, *The Turning Point*, Flamingo, London, 1983; the book was translated into Serbo-Croatian and thus easy accessible in Slovenia.
- 5 Philip Conford, *The Origins of the Organic Movement*, Floris Books, 2001
- 6 Positively Peckham, *Living Earth*, Spring 2007
- 7 Ibid.
- 8 [www.funkyfogey.co.uk/cook/archive](http://www.funkyfogey.co.uk/cook/archive), article about flours by Graham Sherwood, April 2008
- 9 [www.infinityfoodswholesale.co.uk/about](http://www.infinityfoodswholesale.co.uk/about), May 2012
- 10 [www.infinityfoodsretail.co.uk/about\\_us/our\\_heritage](http://www.infinityfoodsretail.co.uk/about_us/our_heritage), May 2012
- 11 Infinity Foods Catalogue – Organic & Natural Foods, May – June 2012
- 12 [www.infinityfoodswholesale.co.uk/organic](http://www.infinityfoodswholesale.co.uk/organic), May 2012
- 13 [www.infinityfoodsretail.co.uk/our\\_beliefs](http://www.infinityfoodsretail.co.uk/our_beliefs), May 2012
- 14 See note 10
- 15 Patrick Holden, *The Seven Deadly Threats to Organic Integrity*, *Living Earth* No 209, 2001
- 16 Interview with Patrick Holden, *Living Earth*, Summer 2006
- 17 Ibid.

### 2. INTEGRITY OF ORGANIC STANDARDS

- 18 The IFOAM Basic Standards for Organic Production and Processing, Version 2005
- 19 Soil Association Standards, [www.soilassociation.org](http://www.soilassociation.org), December 2008
- 20 Biodynamic Agricultural Association, *Demeter Processing Standards for Biodynamic Food Production*, Issue 02.2, October 2006

### 3. QUESTION OF FOOD QUALITY

- 21 T.L. Cleave, *The Saccharine Disease*, Chapter 2, [www.journeytoforever.org](http://www.journeytoforever.org) [original source: Holder, Doods, Moran, *Bread*, Constable, 1954]
- 22 I assume that white flour Type 400 is made even with the lower rate of extraction and therefore incur even slightly bigger loss of fibre. But not having time to investigate this I will leave it aside in our present considerations.
- 23 Katharina Gustavs, *Super Breakfast Cereals*, Natural Health Guides 21, Alive Books, Vancouver, Canada [taken from: Karl von Koerber, Thomas Männle, and Claus Leitzmann. Heidelberg: *Vollwert-Ernährung*, 1994]
- 24 By courtesy: Rapunzel Naturkost AG, Rapunzelstraße 1, D - 87764 Legau, Germany
- 25 [www.sugar.ca/english/educators/thejourneyofsugar.cfm](http://www.sugar.ca/english/educators/thejourneyofsugar.cfm), April 2008

- 26 [www.tateandlyle.com](http://www.tateandlyle.com), April 2008 (rpm means ‘rotation per minute’)
- 27 See note 24
- 28 Saccharose or Sucrose is simple sugar, belonging to the group of disaccharides, containing one molecule of glucose and one molecule of fructose.
- 29 The palette of existing sugars between whole and white is quite large. Their naming and descriptions are even more variable and many times unclear, confusing, and contradictory. Because of this I am planning to address this issue as a part of my future website development.
- 30 I will leave aside the practice of first refining sugar to the white stage and then mixing it with particular percentage of molasses to get various types of brown sugar, because I assume that this practice is not used in production of organic sugar.
- 31 [www.sugar.org](http://www.sugar.org), May 2012
- 32 Ibid.
- 33 Made by Meridian (in 2008). I cannot say if this product is still on sale with the same text as quoted, but I have found a somewhat similar description on their Organic Fairtrade Molasses – Pure Blackstrap.
- 34 For basic understanding of how various type of food affect human being see nutritional principles [Wholefood versus Refined Food](#) and [Food versus Stimulants](#) on my website. Because I am planning to present my understanding what is natural food substance as part of my website, I do not want to do this now.
- 35 [www.schecktersorganic.com](http://www.schecktersorganic.com), May 2012
- 36 James Cleeton, *Organic foods in Relation to Nutrition and Health*, Coronary & Diabetic Care in the UK, 2004

#### 4. EVIDENCE OF HEALTH IMPACTS

- 37 Rudolf Steiner, lecture to the workmen building the first Goetheanum in Dornach, on 31<sup>st</sup> July 1924; published in the book *Nutrition and Stimulants*, Bio-dynamic Farming and Gardening Association, USA, 1991
- 38 Dr. Weston A. Price, *Nutrition and Physical Degeneration: A Comparison of Primitive and Modern Diet and Their Effects*, 1939; available on [www.journeytoforever.org/farm\\_library/price](http://www.journeytoforever.org/farm_library/price)
- 39 M. Bircher/Benner, M.D., *Children’s Diet based on the Conclusions of modern Nutritional Research*, The C. W. Daniel Company Ltd., Great Britain, 1946
- 40 Cathryn Elwood, *Feel Like a Million*, Pocket Books, New York, 1972 (1956)
- 41 Roger. J. Williams, *Nutrition in a Nutshell*, Dolphin Books, New York, 1962
- 42 T. L. Cleave, *The Saccharine Disease*; [www.journeytoforever.org/farm\\_library/cleave](http://www.journeytoforever.org/farm_library/cleave)
- 43 William Dufty, *Sugar Blues*, Warner Books, New York, 1975
- 44 W. C. Martin, *When is a Food a Food – and When a Poison?*, Michigan Organic Press, 1957
- 45 Andrew Stanway, *Taking the Rough with the Smooth*, Pan Books, London, 1981 (1976)
- 46 Alexander Schauss, *Diet, Crime and Delinquency*, Parker House, Berkeley, California, 1980
- 47 Carl C. Pfeifer, Ph.D., M.D., *Nutrition and Mental Illness*, Healing Arts Press, Rochester, Vermont, 1987
- 48 Dr. Stephen Davies & Dr Alan Steward, *Nutritional Medicine*, Pan Books, London, 1987
- 49 Lynne Melcombe, *Health Hazards of White Sugar*, Natural Health Guides 22, Alive Books, Vancouver, Canada, 2000
- 50 Dr. Lisa Hark, Dr. Darwin Deen, *The Whole Grain Diet Miracle*, DK Publishing, New York, 2006

- 51 Soil Association, *Organic Farming, Food Quality and Human Health: A Review of the Evidence*, 2001
- 52 Nancy Appleton, PhD & G. N. Jacob, *Suicide by Sugar*, Square One Publishers, New York, 2009
- 53 David A. Kessler, *The End of Overeating*, Penguin Books, 2009
- 54 [www.britishsugar.co.uk/Information Resource: Health & Wellbeing](http://www.britishsugar.co.uk/Information Resource: Health & Wellbeing), April 2008
- 55 [www.tateandlyle.com](http://www.tateandlyle.com), April 2008
- 56 [www.nytimes.com](http://www.nytimes.com), article *The Claim: Brown Sugar is Healthier than White Sugar?*, by A. O'Connor, June 2007
- 57 James Cleeton, *Organic foods in Relation to Nutrition and Health*, Coronary & Diabetic Care in the UK, 2004
- 58 See note 51
- 59 [www.montezumas.co.uk/Chocolate & Nutrition](http://www.montezumas.co.uk/Chocolate & Nutrition), May 2012
- 60 The statement is taken from their range of Organic Chocolates in the year 2008. Since then they have changed the text on packaging. However the old version enables you to compare the opinion of one of their co-founders with the fact that their company is using the method of hiding highly refined sugar under the general term 'sugar'. It might be even organic white sugar, but this I cannot tell, because this information is not available on their website, nor could I get it directly from them (see Appendix 7: Inquiry about Organic Sugars).
- 61 Karen Sullivan, *Organic Living in 10 Simple Lessons*, Piatkus, London, 2001

## 5. PROMOTION OF ORGANIC FOODS

- 62 James Cleeton, *Organic foods in Relation to Nutrition and Health*, Coronary & Diabetic Care in the UK, 2004
- 63 In the meantime they have changed its name to Biodynamic Association.
- 64 Leaflet: *Biodynamics – an introduction*, Biodynamic Agricultural Association, UK
- 65 Leaflet: *Refining and Processing Sugar*, The Sugar Association, Washington
- 66 Wikipedia/Integrity, December 2008
- 67 *Organic Style*, Jan/Feb 2004; Created by Harvard researcher Walter Willet, M.D., who analyzed more than 50 years of scientific studies on the relationship of food and chronic disease.
- 68 *Organic Style*, Jan/Feb 2004; Created by Liz Applegate, Ph.D., a professor of nutrition at the University of California, for those who exercise more intensely.
- 69 *Organic Style*, Jan/Feb 2004; Created by Oldways Preservation Trust, a non-profit organization that promotes healthful sustainable food choices.
- 70 Dr Joan Webster-Gandy, *Understanding food & Nutrition*, Family Doctor Series, published in association with The British Medical Association, 2003
- 71 Daily Express, November 16, 2009
- 72 Wholefoods is a chain of organic shops in USA and UK.
- 73 The picture from the front page of my report is taken from an example of such promotion of WHOLEFOODS by Allinson.
- 74 From the leaflet *Soil Association in Focus – Food For Life*, no date

## 6. LABELLING OF ORGANIC REFINED FOODS

- 75 Euphemism is the practice of using nice words to describe something unpleasant, ugly or bad; an example is “friendly fire” which means shooting on own soldiers by mistake.
- 76 T.L. Cleave, *The Saccharine Disease*, Chapter 2, [www.journeytoforever.org](http://www.journeytoforever.org)

77 I also possess one old label (with Demeter logo) from Perry Court Farm in Kent where is used expression '85% Wholemeal Wheat Flour' instead of '85% Brown Wheat Flour'.

78 Description is in German only; translation by Egil Farstadvoll.

79 *From farm to fork – Safe food for Europe's consumers*, European Commission, Luxembourg, 2004

80 See note 18

81 See note 19

82 See note 20

## 7. CONSUMERS' FREEDOM OF CHOICE

83 Patrick Holden, *The Seven Deadly Threats to Organic Integrity*, Living Earth No 209, 2001

84 On the second picture is an advertising board from the local shop Seasons. You can notice on the green poster the following statement: 'Seasons Organic and Natural Products – All organic products certified and clearly labelled'. As it is demonstrated in the previous chapter this is not the case in regard to ORGANIC REFINED FOODS.

85 See note 83

86 Photos taken in 'Lembas Wholefoods' shop in April 2008.

87 First chocolate made by Rapunzel Naturkost AG from Germany. Ingredients: RAPADURA whole cane sugar\*\*, cocoa mass\*\*, cocoa butter\*\*, Bourbon vanilla\*, (\*\*certified biodynamic, \*certified organic). Second product belongs to the range of seven mini chocolates made with coconut palm sugar (for details see [www.ombar.co.uk](http://www.ombar.co.uk)).

88 See note 83

89 Here I am referring to WHOLEFOODS made from grains and grain flours. I have never heard that people cannot digest whole sugar, as against white sugar. In the case of sugar, there exists an argument that whole sugar has too strong a taste and therefore 'spoils the dish'!?

90 In accordance with the definition by DEFRA in *Compendium of UK Organic Standards* (September 2006): 'labelling' shall mean any words, particulars, trade marks, brand names, pictorial matter or symbols on any packaging, document, notice, label, board or collar accompanying or referring to a(n organic) product.

91 The question which arises out of my investigation is: Are the researchers inside the organic movement really independent and unbiased or do we already have a similar situation as it is with the position of scientific researchers which mainly rely on corporate funding? But this is a topic for another investigation.

## Summary

92 *The Debate: Is Organic Food Healthier than Conventional Food?*, The Ecologist, Feb 2005

93 Green & Black's is a company producing range of organic chocolate products (see: [www.greenandblacksdirect.com](http://www.greenandblacksdirect.com)); Cadbury is one of the leading mainstream producer of the chocolate products (see [www.cadbury.co.uk](http://www.cadbury.co.uk)). Statement by Mark Holme, organic retailer and columnist, date unknown.

94 Rudolf Steiner gave eight lectures on agriculture in 1924 which became the starting point of the development of biodynamic farming.