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Organic Farming

Basic Concepts

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What does it mean? ^{1 2}

The Organic word is on trend; we see it in the food we eat, the cosmetics we use and the cleaning products we buy. But its real meaning and importance, the different labels used, the statistics and endless regulations... it can get confusing and overwhelming when making decisions as a consumer and really understanding its importance beyond being a hipster trend.

Here we will give you very easy direct and yet useful information about it, focusing on the organic farming area. We'll see why organic production it's so important for maintaining ecological processes happening in nature as well as for our own well-being as individuals and as a community.

The main idea of organic farming is simple...

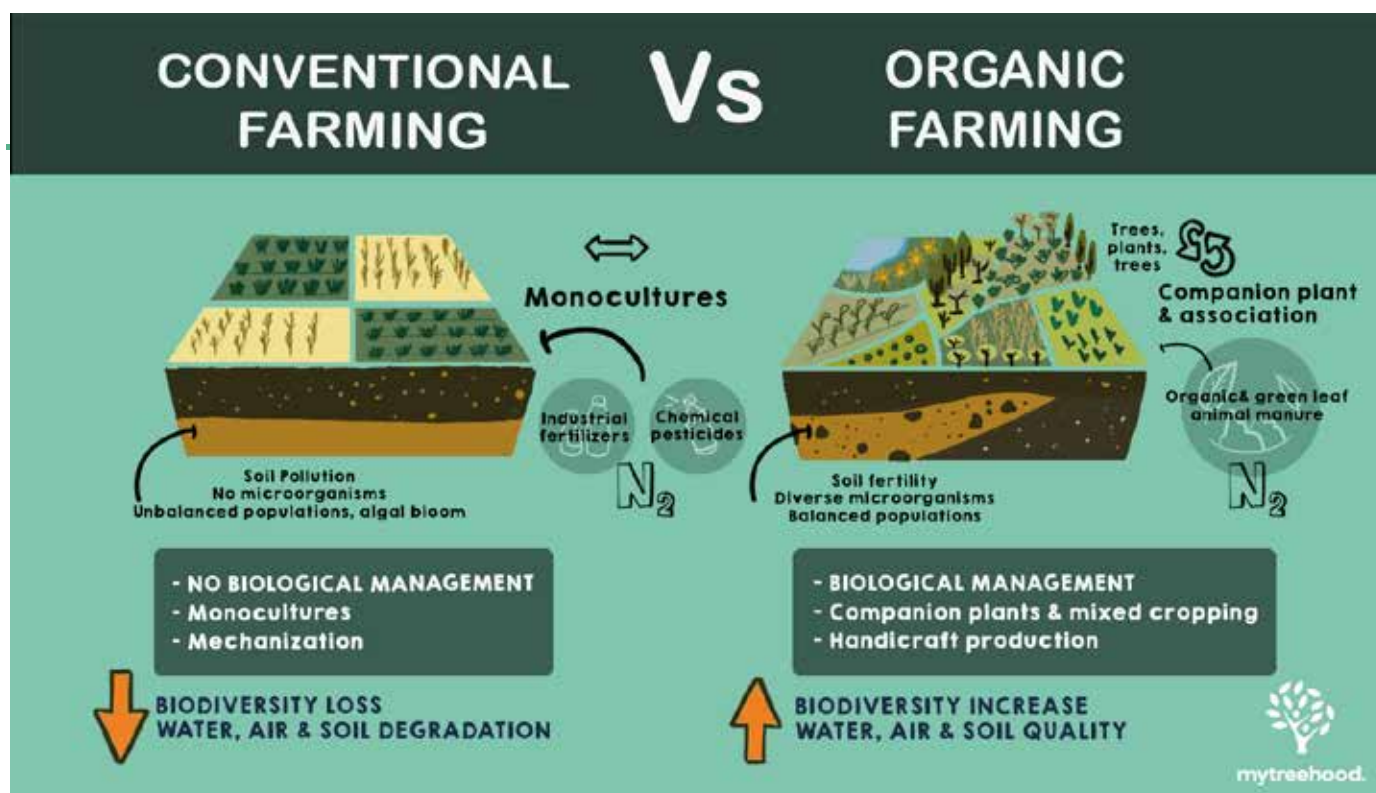


it is an agricultural system that uses fertilizers and techniques of organic origin, meaning processes that are already happening in nature, without having to intervene with artificial products or methods.



So, the ecosystem manages itself rather than using external agriculture inputs. Many changes observed in the environment are long term, occurring slowly over time. Organic agriculture aims to produce food while establishing an ecological balance to prevent soil fertility or pest problems. Organic agriculture takes a proactive approach as opposed to treating problems after they emerge.

The opposite would be called “conventional farming”, in which there is a use of synthetic fertilizers and pesticides, veterinary drugs, genetically modified seeds and breeds, preservatives, additives and irradiation in order to produce more volume in less time.



For instance, if we take a look at two fertilizers, one natural and one artificial, although they both use Nitrogen to enhance the plants growth, the Organic uses less quantity and all from natural sources, such as animal manure or microorganisms. The Artificial will use more Nitrogen obtained by mechanical or chemical processes, in order to optimize the production; the problem is that half of the Nitrogen won't be absorbed by the soil, ending up in water streams or into the atmosphere as a greenhouse gas

For more info, you can take a look at our 2nd paper about Nitrogen in Agriculture

Organic farming has advantages in



*sustainability
openness
self sufficiency
autonomy and independence
health
food security
food safety*

So, from an environmental perspective, producing and eating organic means that you're contributing to a responsible use of energy, keeping biodiversity and an ecological balance, as well as soil fertility and water quality. All of these things are a big deal, as they're what really sustain and make possible life on earth, including us! So, organic farming might sound complicated, but what it really means is that the less human-made intervention, the better.

From a human-health perspective, it is also urgent to eat organically, not just because of the lack of essential nutrients that non-organic vegetables present due to all these artificial interventions in the soil, water and plant's life cycle, but also because of all the agrochemicals and pesticides that we store in our system by eating from traditional intensive farming.

History 3 4 5

When the practice of agriculture was originated **12000 years ago**, during what's been called the Neolithic Revolution, all farming was completely organic; for example, forest gardening, a fully organic food production dates from those times, and is thought to be the world's oldest and most resilient agroecosystem

So, we can see that organic farming was practiced for thousands of years without impacting the natural ecosystems, until the arrival of the Industrial Revolution within the first period of the 20th Century, when everything changed.

The arrival of the gasoline-powered tractors as well as hybrid seeds and nitrogen fertilizers transformed the labour equation: there were almost no tractors in the US around 1910, but over 3,000,000 by 1950; in 1900, it took one farmer to feed 2.5 people, but nowadays the ratio is 1 to well over 100.



The term was first coined by Walter James in his book "*Look to the Land*," in which he talked about a natural and ecological approach to farming. He focused on the "farm as an organism," and his ideas were fundamental in the creation of the worldwide organic farming movement.

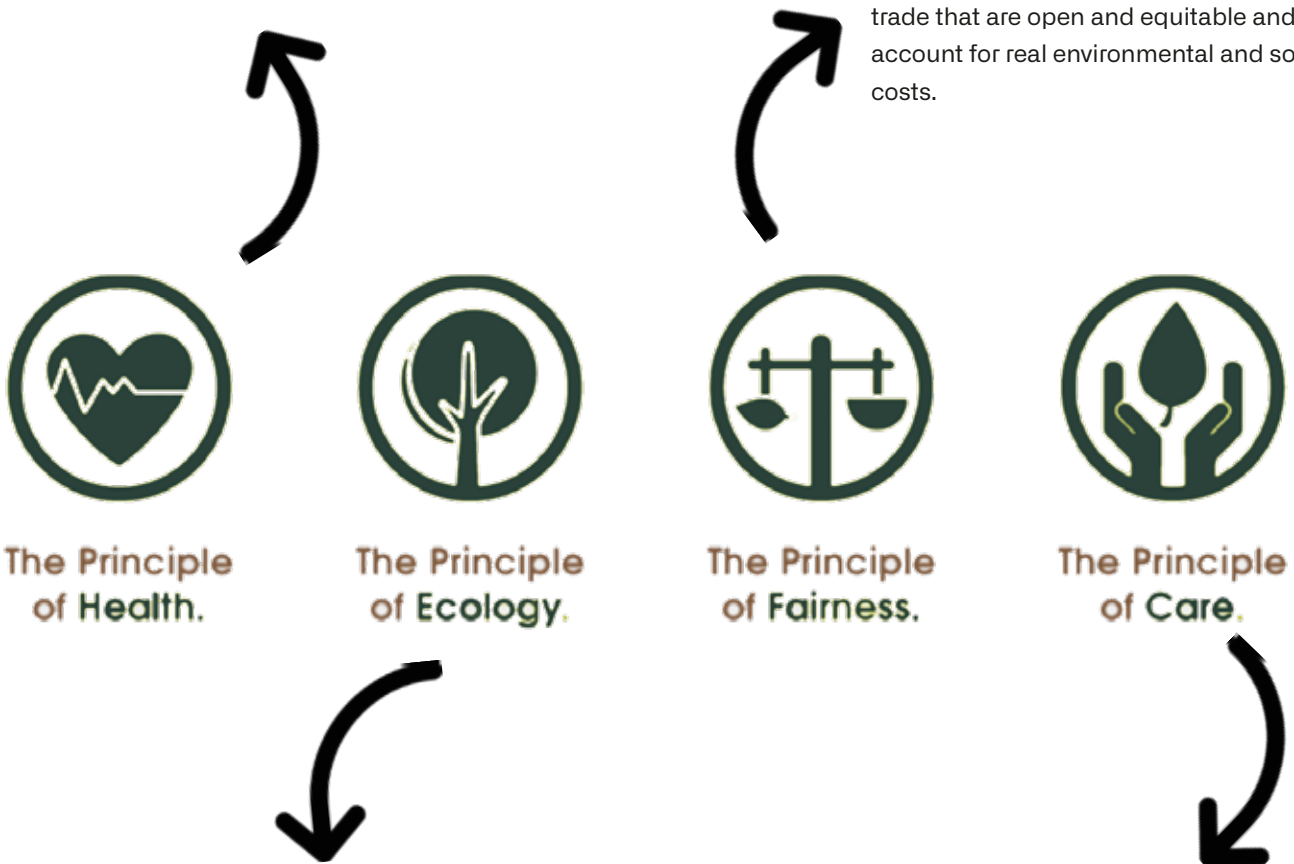
After realizing the harmful consequences of this new model both for nature and human health, an organic movement began again in the 1940s as a reaction to agriculture's growing reliance on synthetic fertilizers and pesticides. Since then, several authors and activists have been trying to bring organic farming back into the equation.



Principles of Organic Farming ⁶

Organic Agriculture should sustain and enhance the **health of soil, plant, animal, human and planet** as one and indivisible. In view of this it should avoid the use of fertilizers, pesticides, animal drugs and food additives that may have adverse health effects.

Organic Agriculture should build on relationships that ensure **fairness with regard to the common environment and life opportunities**. Fairness requires systems of production, distribution and trade that are open and equitable and account for real environmental and social costs.



Organic Farming around the world ⁷

As of **2020**, approximately **75M hectares** (190M acres) worldwide were farmed **organically**, representing approximately **1.6%** of total world farmland, with over half of that total in Australia, followed by Argentina and Uruguay

Organic Agriculture Worldwide 2020

Organic Farmland



74.9M
ha

Organic farmland in million hectares

+4.1%

Growth 2019/2020

190

Countries with organic farming

Land in million hectares Top 3 countries



Organic Producers

The number of organic producers is increasing

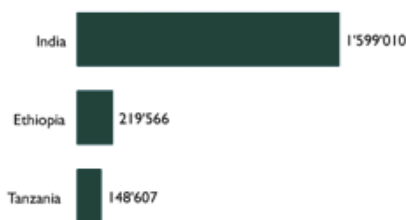
3.4M

Organic farmers

+7.6%

From 2019

Number of producers Top 3 countries



Organic Market

The global market is growing and consumer demand is increasing

Over 120.6

Global organic food market in billion euros

Market in billion euros Top 3 countries



Market growth in percent Top 3 countries



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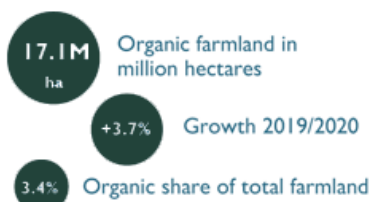
Source: FiBL survey based on national sources
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More information: www.organic-world.net - statistics.fibl.org

From **1990**, the market for organic food and other products has grown rapidly, having a **4.1% growth** from 2019 a 2020. Nowadays, 190 countries practice organic farming.

From the **74.9M** Ha around the world, **17.1M** are happening in Europe. **Spain** is the **6th country** in the world and the 3rd in Europe for organic farming areas, as seen in the following Infograph.

Organic Agriculture in Europe 2020

Organic Farmland



Land in million hectares Top 3 countries



Organic Producers

The number of organic producers is increasing



Number of producers Top 3 countries



Organic Market

The European market is growing



Market in billion euros Top 3 countries



Market growth in percent Top 3 countries



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Source: FiBL survey based on national sources
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So, within the central ideas of organic farming, it is essential to promote **local consumption** as much as we can; this mainly translates into energy saving and a reduction of greenhouse emissions.

In 2020 the EU imported 843MT, increasing 8.4% from 2019, of tropical fruit, nuts and spices, in which Pistachios are included. This category is at the top of imported organic fruits and vegetables in Europe. Luckily, Spain is the largest permanent crop area for nuts in Europe, with 0.7million Ha.

Building trust in organic farming ^{8 9}

So, maybe after reading this information and statistics and understanding its importance, you're all about: let's do it, I'm just going to consume organic food. But... how can I know for sure that the products I'm eating follow all these standards?.

There are different ways of approaching this:

Far away from all the supply chain (involving farms, production and distribution processes), it's difficult for you to see **where your food comes from**. That's why different public organisms, such as the EU, maintain a system of control and enforcement. After checking the producers follow the standards, they get certified as organic and then use an eco-label system on their products. You, as a consumer, will identify and make a conscious decision about your food.

There are organic agriculture farmers that are not certified but still follow all these principles. They're usually **small producers and they'll be selling in small farmers markets** or even in their own households. In some cases, they can even offer the consumers the option of visiting their farms and being more involved in their projects so that, even if there's no certification as a guarantee, you're able to experience it for yourself.

Service-driven organic agriculture. In countries such as in the European Union (EU), **subsidies for organic agriculture are available** to generate environmental goods and services, such as reducing groundwater pollution or creating a more biologically diverse landscape.



Organic certifications in industry ^{10 11}

What should I pay attention to in an eco-label?

An organic label indicates that a product has been certified against specific organic standards.

The label carries the name of the certification body and the standards with which it complies, (e.g. EU 2092/91). To the informed consumer, this label **can function as a guide**.

The label of a given certification body informs the consumer on the type of standards complied with during production and processing as well as on the type of recognition granted to the certification body. Many certification bodies operate worldwide, most of which are private and originate in developed countries.

UK organic certified symbols



EU 'Leaf' organic standard symbol



Examples of organic symbols from around the world



Eating local food that looks like food

Another piece of advice: not only buy food because it's organic, but also **try to consume things that your grandparents would recognize**. For instance, we might buy processed food that has ingredients certified as organic, but that doesn't imply it's going to be healthy for us or the environment. Also, although it might be really tempting to consume exotic ingredients for various reasons, try to put some common sense to it, and eat whatever nature provides in your proximity areas.

Here's a piece of advice: if you're taking the organic path, you might better do it all the way. That implies buying more raw ingredients, such as local vegetables, eggs and fruits, and less processed meals.



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