SEPTEMBER NEWSLETTER

PowerWorms: Vermicomposting; The Future of Sustainable Agriculture and Organic Waste Management in Europe

"EU Organic Day"

September 2024

ERASMUS+ PROGRAMME KA2: COOPERATION FOR INNOVATION AND THE EXCHANGE OF GOOD PRACTICES IN VOCATIONAL EDUCATION

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Dear readers,

This September 23rd we celebrate the **Organic Day** as a result of the European Union decision taken in March 2021, announcing the creation of such a day to raise awareness of the characteristics and benefits of organic production.

The Action Plan is an initiative aimed at boosting both organic production and consumer demand for organic products. It's all about creating a greener future, with the goal of having 25% of agricultural land under organic farming by 2030, as well as making strides in organic aquaculture.

The plan highlights the many benefits of organic farming, like enhancing biodiversity, better animal welfare, increased farmer income, and building consumer trust. It aligns with the European Green Deal and focuses on three key areas: boosting consumption, increasing production, and enhancing sustainability in the sector.

With over 20 concrete actions, it includes strategies for promoting organic products, supporting farmers in their transition to organic practices, and enhancing sustainability by caring for animal welfare. Additionally, it encourages Member States to develop their own organic action plans, considering the varied organic farming landscape in different countries.

The European Commission is also planning events to raise awareness and lend support to the organic sector through innovation, research, and financial tools like eco-schemes under the Common Agricultural Policy (CAP).

Apparently, there will be ongoing monitoring and opportunities for adjustments based on feedback from stakeholders.

But, on top of all of these institutional intentions and actions, we would like to remind in this month a genuine and naive desire: to acknowledge the need for a better environment, as well as a healthier and nutritious landscapes for the people. Let us add to the initiative: The future will be organic or will not be.

The PowerWORMS Team

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EN

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GR

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MK

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TR

Avrupa Komisyonu'nun bu yayının üretimine verdiği destek, sadece yazarların görüşlerini yansıtmakta olup içeriğin onaylandığı anlamına gelmez ve Komisyon burada yer alan bilgilerin herhangi bir şekilde kullanılmasından sorumlu tutulama

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The four principles of Organic Agriculture

As per the IFOAM (International Federation of Organic Agriculture Movements), Organic Agriculture is based in 4 principles: Health, Ecology, Fairness, and care.

These 4 Principles are the roots from which organic agriculture grows and develops. They express the contribution that organic agriculture can make to the world, and a vision to improve all agriculture in a global context. Agriculture is one of humankind's most basic activities because all people need to nourish themselves daily. History, culture and community values are embedded in agriculture. The Principles apply to agriculture in the broadest sense, including the way people tend soils, water, plants and animals in order to produce, prepare and distribute food and other goods. They concern the way people interact with living landscapes, relate to one another and shape the legacy of future generations.

The Principles of Organic Agriculture serve to inspire the organic movement in its full diversity. They guide IFOAM's development of positions, programs and standards. Furthermore, they are presented with a vision of their world-wide adoption.

Let us comment these principles in a little more detail in the following sections.

Principle of Health

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.

Principle of Ecology

This principle roots organic agriculture within living ecological systems. It states that production is to be based on ecological processes, and recycling.

Nourishment and well-being are achieved through the ecology of the specific production environment. For example, in the case of crops this is the living soil; for animals it is the farm ecosystem; for fish and marine organisms, the aquatic environment.

Organic farming, pastoral and wild harvest systems should fit the cycles and ecological balances in nature. These cycles are universal but their operation is site-specific. Organic management must be adapted to local conditions, ecology, culture and scale. Inputs should be reduced by reuse, recycling and efficient management of materials and energy in order to maintain and improve environmental quality and conserve resources.

Organic agriculture should attain ecological balance through the design of farming systems, establishment of habitats and maintenance of genetic and agricultural diversity. Those who produce, process, trade, or consume organic products should protect and benefit the common environment including landscapes, climate, habitats, biodiversity, air and water.

Principle of Fairness

Principle of Fairness is characterized by equity, respect, justice and stewardship of the shared world, both among people and in their relations to other living beings.

This principle emphasizes that those involved in organic agriculture should conduct human relationships in a manner that ensures fairness at all levels and to all parties - farmers, workers, processors, distributors, traders and consumers. Organic agriculture should provide everyone involved with a good quality of life, and contribute to food sovereignty and reduction of poverty. It aims to produce a sufficient supply of good quality food and other products.

This principle insists that animals should be provided with the conditions and opportunities of life that accord with their physiology, natural behavior and well-being.

Natural and environmental resources that are used for production and consumption should be managed in a way that is socially and ecologically just and should be held in trust for future generations. Fairness requires systems of production, distribution and trade that are open and equitable and account for real environmental and social costs.

The principle of Care

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.

Some data about Organic Farming

Organic Agriculture: Key Indicators and Top Countries

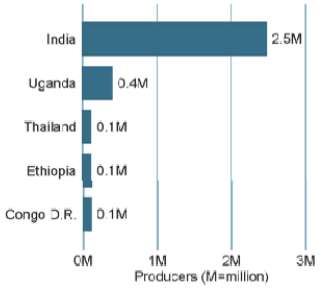
Indicator	World	Top countries
Countries with organic activities	2022: 188 countries	
Organic agricultural land	2022: 96.4 million hectares (2000: 15 million hectares)	Australia (53.0 million hectares) India (4.7 million hectares) Argentina (4.1 million hectares)
Organic share of total agricultural land	2022: 2.0 %	Liechtenstein (43.0 %) Austria (27.5 %) Estonia (23.4 %)
Increase of organic agricultural land 2021/2022	20.3 million hectares (ha); +26.6 %	Australia: 17'328'259 ha (+48.6 %) India: 2'068'825 ha (+77.8 %) Greece: 390'223 ha (+73.0 %)
Wild collection and further non-agricultural areas	2022: 34.6 million hectares (ha) (1999: 4.1 million hectares)	Finland (6.9 million hectares) India (4.4 million hectares) Zambia (3.2 million hectares)
Producers	2022: 4.5 million producers (1999: 200’000 producers)	India (2'480'859) Uganda (404'246) Thailand (121'540)
Organic market	2022: 134.8 billion euros (2000: 15.1 billion euros)	US (58.6 billion euros) Germany (15.3 billion euros) China (12.4 billion euros)
Per capita consumption	2022: 17.0 euros	Switzerland (437 euros) Denmark (365 euros) Austria (274 euros)
Number of countries/ territories with organic regulations	75 (fully implemented) 14 (drafting)	
Number of affiliates of IFOAM – Organics International	2022: 781 affiliates	Germany: 80 affiliates China: 52 affiliates India: 49 affiliates USA: 45 affiliates

Source: FiBL & IFOAM – Organics International (2024)

Organic Producers Top Countries

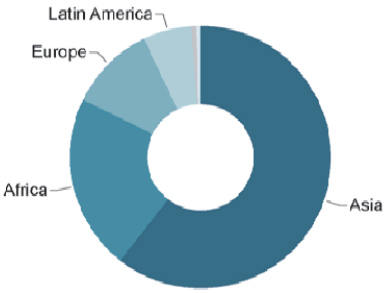
FiBL & IFOAM – Organics International (2024): The World of Organic Agriculture. Frick and Bonn

The countries with the most organic producers were India, Uganda, Thailand, and Ethiopia.



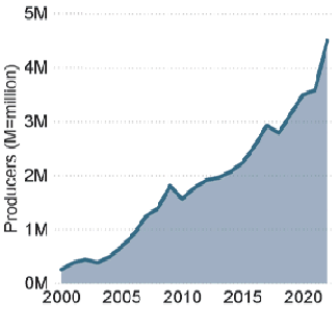
The five countries with the most organic producers 2022

More than 90% of the producers were in Asia, Africa and Europe.



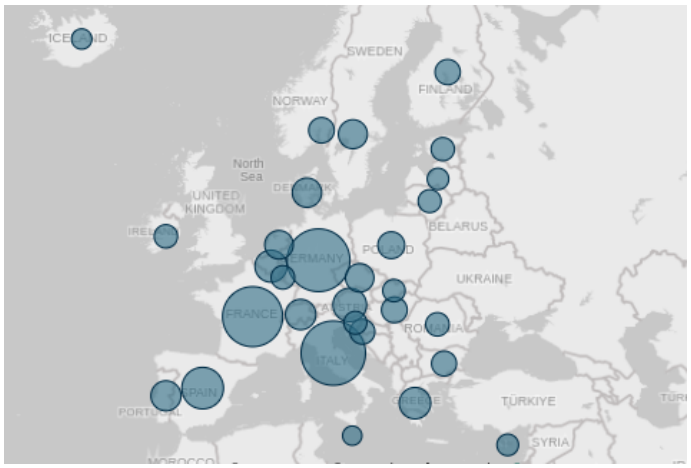
Distribution of organic producers by region 2022

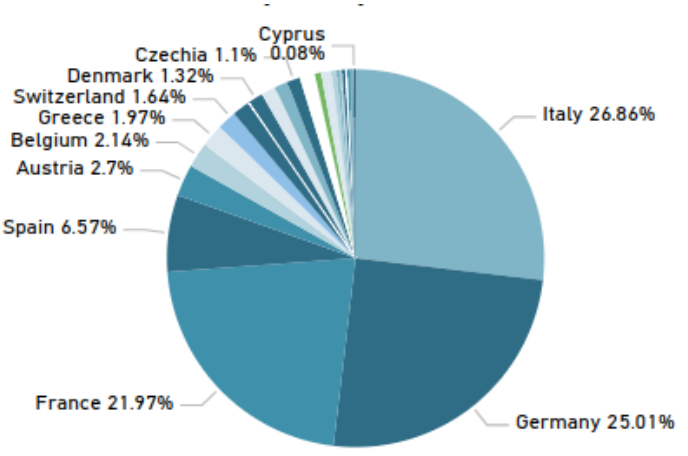
There has been an increase in the number of producers by more than 900'000 or 25.6% between 2021-2022. (Mainly due to an increase in India)

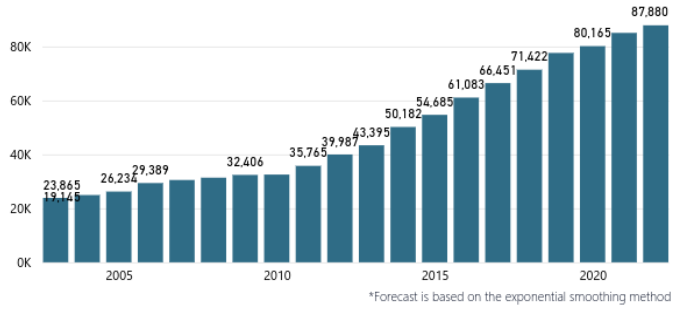


Development of the number of organic producers 2000-2022

EU Organic Agriculture producers







Evolution of the number of organic producers

Action plan for organic production in the EU

The European Commission's organic action plan aims to have at least 25% of the EU's agricultural land under organic farming by 2030 to support the European Green Deal's sustainable food system. This plan builds on past efforts and includes public input from 2020 consultation to citizenship.

The Three Main Goals are as follows:

1. Stimulate Demand and Ensure Consumer Trust:
    - Promote organic farming and the EU organic logo.
    - Increase the use of green public procurement.
    - Reinforce organic school schemes
    - Prevent food fraud, improve traceability and involve the private sector.
2. Stimulate Production and Processing:
    - Encourage conversion to organic farming and investment in best practices.
    - Enhance sector transparency
    - Support food chain organization: promote local processing and short trade circuits.
    - Improve animal nutrition and strengthen organic aquaculture.
3. Strengthen Environmental Sustainability:
    - Reduce agriculture's environmental footprint.
    - Enhance genetic biodiversity and increase yields.
    - Develop alternatives to contentious inputs.
    - Improve animal welfare and resource efficiency.

Supportive Measures:

- Financial support and technical assistance through the Common Agricultural Policy (CAP), including eco-schemes.
- Enhanced farm advisory services under Agricultural Knowledge and Innovation Systems (AKIS).

Research and Innovation:

The Commission will allocate at least 30% of the budget for agricultural research to the organic sector, focusing on crop yields, biodiversity, and sustainable farming practices.

This comprehensive strategy including 23 action points strives to boost organic farming to meet environmental sustainability goals while ensuring the market for organic products remains robust and trustworthy.

Case Studies: Farms Embracing Organic Farming

"Los Robles" is a care farm which caters for people with mental and physical disabilities. This farm is located in the north of Burgos, Spain.
It is a unique facility which understands the benefits that being outdoors, and the environment, can bring, as well as the impact good food can have on the residents' health. Theresa, the Director of the Centre, believes that good food is one of the basics of good health. One of the main principles of the organization is to take care of the land.

The approach they use combines permaculture and regenerative agriculture methods to harvest local produce, not only for their own consumption, but now also to sell to the local community. This means not using toxic products on the plants but ensuring that the soil regenerates and keeps its life.

Another of the main principles is to enable residents to try and live the life that they would lead outside of the centre. Therefore they are encouraged to take part in all of the activities the centre hosts, such as collaborating in the kitchen making bread and working together in the garden. The centre helps them to lose their fears and gives them the ability to adapt and to gain skills by setting

the residents small life goals.

This farm, managed organically 100%, is spread over about 10ha, including several fields, communal forests and a number of buildings (processing and storage, barns, animal stables,poly tunnelsls, gardens, orchard…).

At the farm,The farm is abundant with a diverse range of vegetable produce for the residents and a plentiful supply of pasture and forage for the farm animals, including sheep, pigs, and hens. These animals are also well-cared in stables and pens, as well as in free-range forest.

This setup is very comprehensive, requiring minimal inputs while ensuring that almost everything is recycled in some manner. It creates a continuous cycle where nutrients from the animals are returned to the soil, promoting healthy plant growth. Subsequently, these plants contribute to nourishing both humans and animals, thus closing the loop of resource utilization.

After more than 3 decades of work, this Farm and Care Centre, Los Robles, has a lot of basic areas and good practices to learn from: Permaculture, Organic and regenerative farming… as well as most fundamental: care of humanity.

Theresa puts vast amounts of energy into her work at the care farm, but does not have the time to communicate all the good results that this initiative has on the residents' health. We would like to show the world the inspiring work that they do. This would be a great project to set up in other countries. Theresa's advice is to first begin at a small scale and observe what the land has to offer.

Test your knowledge about Vermicomposting

As our project progresses, we are already producing some content in the past newsletters and materials available via our website: https://www.powerworms.org and e-learning LLOOF course

Check your knowledge of vermicomposting with our fun and friendly quiz! and learn more about how earthworms and microorganisms turn waste into nutrient-rich gold for the soil. Perfect for agronomy enthusiasts, sustainable agriculture advocates, and curious minds alike. Start!

Question 1

What is vermicomposting primarily a process of?

A. Composting inorganic waste
B. Composting organic waste involving earthworms
C. Composting industrial waste

Question 2

Which organisms play a primary role in vermicomposting?

A. Earthworms and microorganisms
B. Birds and insects
C. Fungi and algae

Question 3

What is the main beneficial product of vermicomposting?

A. Pesticides
B. Fertilizers
C. Fungicides

Question 4

Which phase is absent in vermicomposting compared to regular composting?

A. Thermophilic phase
B. Maturation phase
C. Oxidative phase

Question 5

Which type of earthworm species are mostly used in vermicomposting?

A. Aquatic species
B. Epigeic species
C. Endogeic species

Question 6

What nutritional elements are increased by vermicompost?

A. Nitrogen, Phosphorus, and Potassium
B. Carbon, Helium, and Neon
C. Gold, Silver, and Platinum

Question 7

What kind of conditions are preferable for earthworms in vermicomposting process?

A. Dry and hot conditions
B. Moist and oxygen-rich conditions
C. Cold and high protein conditions

Question 8

Which component in vermicompost is known to promote plant growth?

A. Natural residues
B. Mineral particles
C. Humic acids

Question 9

How do earthworms help in reducing heavy metals during vermicomposting?

A. By emitting gases
B. By accumulating metals in their bodies
C. By increasing temperature

Question 10

Which phase involves a significant increase in bacterial diversity during vermicomposting?

A. Initial phase
B. Active phase
C. Final phase

Question 11

What does the acidic pH in vermicompost result in?

A. Decreased nutrient availability
B. No change in nutrients
C. Increased nutrient availability

Question 12

Which plant pathogen can vermicompost help suppress?

A. Salmonella
B. Fusarium oxysporum
C. Mycoplasma

Correct Answers

Q1 - B	Q2 - A	Q3 - B	Q4 - A	Q5 - B	Q6 - A
Q7 - B	Q8 - C	Q9 - B	Q10 - B	Q11 - C	Q12 - B

How can you help to support Organic Farming and consumption?

Here are some suggestions that you can do to support locally and even internationally the Organic Movement. Everyone's effort is a step towards a more healthy and resilient future.

- Reduce, reuse, and recycle – Enhance your sustainability efforts by including organic options in your zero-waste goals. Choose loose produce from local independent shops, or try their refill stations for items like wine, milk, herbs, and spices. Consider repurposing packaging from your favorite organic brands; for example, turn empty nut butter tubs into plant pots!

- Join the organic community – Whether you're new to sustainable living or an experienced organic gardener, becoming part of the larger community is a great starting point if you care about eco-friendly food and farming. Get involved in green campaigning – Celebrate actions within your community.

- Cook good local, organic food at home. Eat products from the season and reduce food waste. Compost it as a last resource. Strive for zero food waste at least. Do not forget to also support organic shops, restaurants, even chefs!

- Stand up for sustainable beauty – Remember, organic isn't just limited to food and drinks! Look for some acknowledged Organic Association or Group (producing, teaching, selling…). Even in search of beauty and wellness products, ensure you're supporting businesses that avoid animal testing and harmful chemicals like parabens, phthalates, synthetic dyes, and fragrances.

- Volunteer on an organic farm – Consider WWOOFing, a fantastic way to volunteer, both locally and abroad. You'll meet fellow agricultural enthusiasts and gain hands-on experience on an organic farm.

- Opt for organic – Supporting organic farmers and producers is one of the simplest and most direct forms of environmental activism. Every organic purchase contributes to wildlife conservation, soil health, and high standards of animal welfare. Choosing organic helps bolster biodiversity and nurtures healthy ecosystems.

- Turn your garden organic – From peat-free compost or vermicomposting to pollinator-friendly plants, there are numerous ways to create an eco-friendly garden, even at home.

- Support your local organic farmers – Subscribing to a fruit, veggie, or meat box from local organic farmers offers numerous benefits. You'll join a community dedicated to better farming and eating practices, which are healthier for people, nature, wildlife, and the climate. Find a local farmer and make friends, you both will take care of each other in the best way possible ;-)

Share Your Organic Stories

At PowerWORMS, we believe in the transformative power of sharing knowledge and experiences. Have you implemented sustainable practices on your farm that have improved biodiversity and productivity? Have you witnessed the return of pollinators, enhanced soil fertility, or a thriving ecosystem as a result of your efforts? We want to hear from you!

Your stories can inspire and guide other farmers and agricultural enthusiasts looking to make a positive impact on their environment. By sharing your journey, challenges, and successes, you can contribute to a global movement towards sustainable and biodiverse farming.

How to Share:

- Visit Our Website: Head over to www.powerworms.org and navigate to the "Share Your Story" section.
- Submit Your Story: Fill out the submission form with details about your initiatives, practices, and the results you've seen.
- Include Photos: Enhance your story with photos of your farm, practices, and the biodiversity you've nurtured.
- Connect and Inspire: Engage with a community of like-minded individuals, learn from others, and inspire new ideas and collaborations.

Your contribution can significantly improve the promotion of sustainable practices and biodiversity in farming. Together, we can create a thriving, resilient agricultural landscape for future generations.

Join us in our mission to enhance biodiversity and sustainability in agriculture. Share your story today and be a part of the change!

For any questions or assistance with your submission, please contact us at info@powerworms.org.

Thank you for being a part of this important movement!

Inviting Contributions and Feedback

Join the PowerWORMS Community!

As we journey through the fascinating world of sustainable agriculture and vermicomposting, your voice, experiences, and insights are invaluable to us. We're not just a newsletter; we're a community of enthusiasts, learners, and eco-conscious individuals. And we'd love for you to be an active part of this vibrant community.

Share Your Experiences

Have you started your own vermicomposting project?

What challenges and successes have you encountered?

Do you have unique tips or stories about your vermicomposting journey?

We're eager to hear about your experiences! Your stories can inspire and educate others, creating a ripple effect of sustainable practices.

Ask Questions

Are there aspects of vermicomposting or sustainable agriculture you're curious about?

Do you have specific challenges you need help with?

Don't hesitate to ask. Our community is here to share knowledge and provide support.

info@powerworms.org

Interactive Community Section

Visit the PowerWORMS website https://powerworms.org and explore our new interactive community section. Post your stories, questions, and suggestions.

Stay Connected

Follow us on social media for updates, tips, and community highlights.

Share your vermicomposting photos and stories with the hashtag #PowerWORMSCommunity.

Your participation enriches our project and brings us closer to our goal of promoting sustainable practices worldwide. Together, we can make a significant impact on the health of our planet.

https://powerworms.org

https://www.instagram.com/power.worms/

https://twitter.com/power_worms

Looking forward to your valuable contributions!

Warm regards,

The PowerWORMS Team.

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Contact Information

Name: Dr. Ekrem AKBULUT, Dr. Gulcin AKBULUT
Partner: Malatya Turgut Ozal University
Email: ekrem.akbulut@ozal.edu.tr

Name: Fatih DEMİRCİ, E. Ozkan DEMİRCİ
Partner: Naturainnova
Email: fatih.demirci@naturainnova.com, enezdemirci@gmail.com

Name: Abdullah ERDOGAN, Dr. Duygu Ozelci
Partner: Malatya Apricot Research Institute
Email: abdullah.erdogan@tarimorman.gov.tr, duyguozelci@gmail.com

Name: Chemi Peña

Partner: WWOOF ESPAÑA

Email: info@wwoof.es

Name: Aikaterini SOTIROPOULOU
Partner: INNOPOLIS
Email: projects@innopolis.org

Name: Ljupcho TOSHEV, Aleksandra NİKOLOVA

Partner: FACE (Foundation Agro-Centre for Education)

Email: Lj.tosev@ace.org.mk, a.nikolova@ace.org.mk

Name: Athanasios KRİKİS
Partner: INNOTOMIA
Email: athkrikis@innotomia.com

Name: Sefer DEMİRCİ, Mehmet ALTUNBAS
Partner: ILA
Email: sefer@ilabour.eu, mehmet@ilabour.eu

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