RODALE INSTITUTE™

EUROPEAN REGENERATIVE ORGANIC CENTER

DAVINES GROUP

davines [comfort zone]

The problem

- The adoption of intensive food production systems in the early 1900s began a trend of drastic declines in biodiversity, soil health, and human nutrition.
- Chemical-based agricultural practices have accelerated the degradation of the world's soils, putting at risk the well-being of the entire planet.
- We now live in the Anthropocene where human activities are mainly responsible for global environmental change.
- Conventional agriculture **needs** to produce always more without considering the effect on the environment

Regenerative Organic Agriculture

1. Minimum soil disturbance
2. Crop rotations
3. No chemical pesticides, herbicides or fertilizers
4. Permanent soil coverage with cover crops
5. Organic fertilization (Manure, compost etc)
6. Increased biodiversity

DAVINES GROUP
davines [comfort zone]

CARBON SEQUESTRATION - HOW IT WORKS

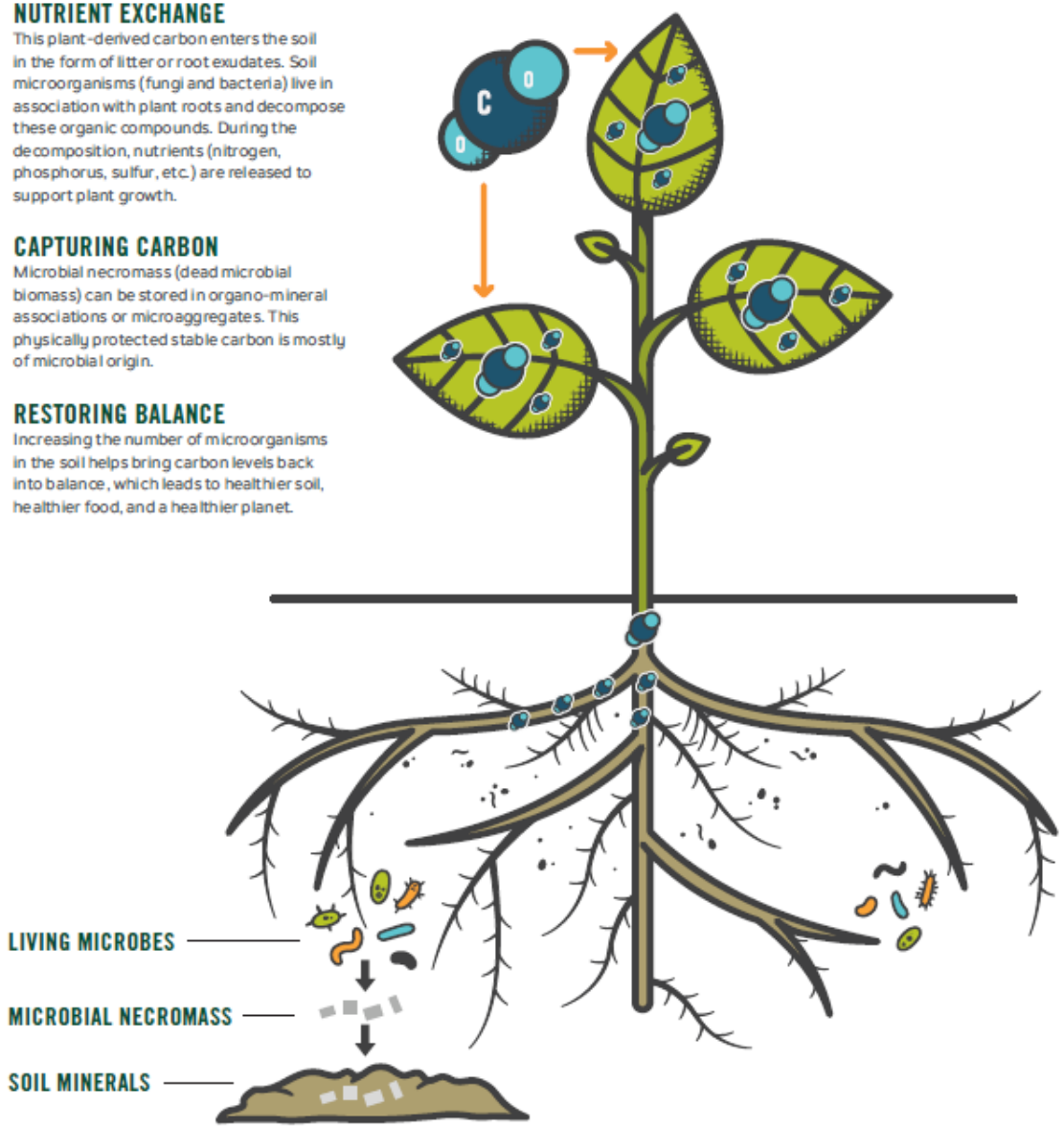
RODALE INSTITUTE

1 PHOTOSYNTHESIS
During photosynthesis, plants convert carbon dioxide (a gas) into sugar (carbohydrate molecules).

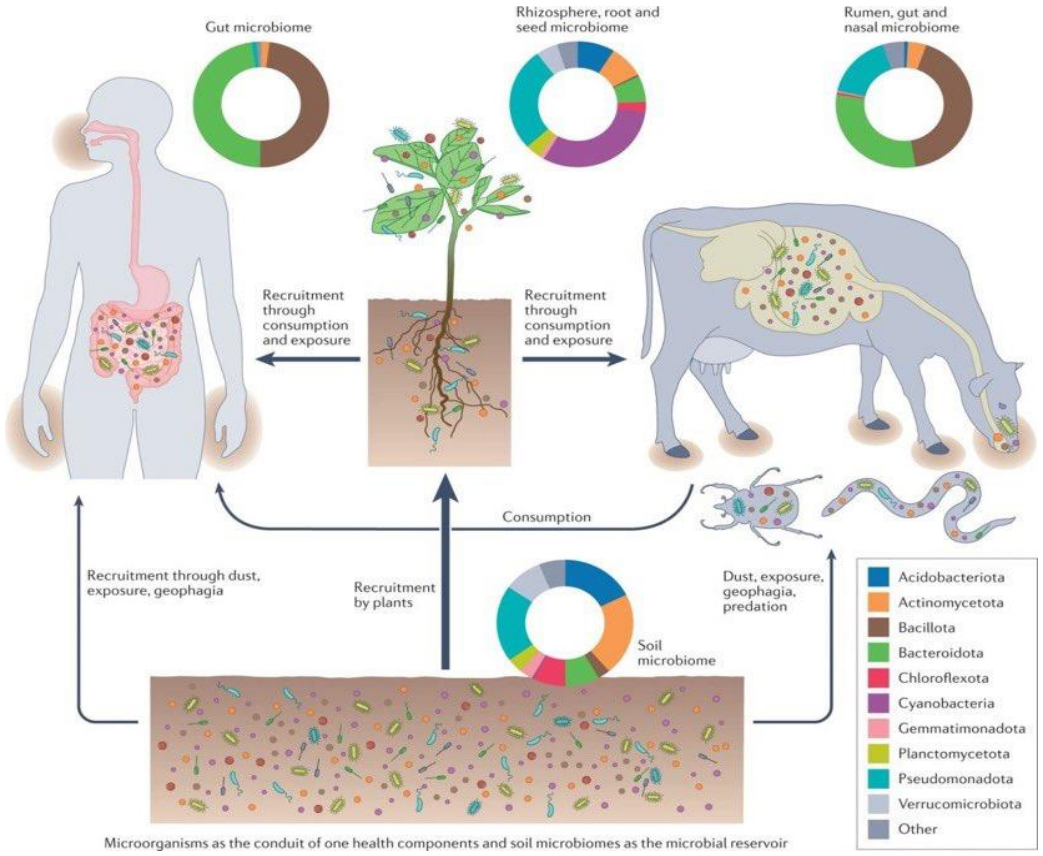
2 NUTRIENT EXCHANGE
This plant-derived carbon enters the soil in the form of litter or root exudates. Soil microorganisms (fungi and bacteria) live in association with plant roots and decompose these organic compounds. During the decomposition, nutrients (nitrogen, phosphorus, sulfur, etc.) are released to support plant growth.

3 CAPTURING CARBON
Microbial necromass (dead microbial biomass) can be stored in organo-mineral associations or microaggregates. This physically protected stable carbon is mostly of microbial origin.

4 RESTORING BALANCE
Increasing the number of microorganisms in the soil helps bring carbon levels back into balance, which leads to healthier soil, healthier food, and a healthier planet.



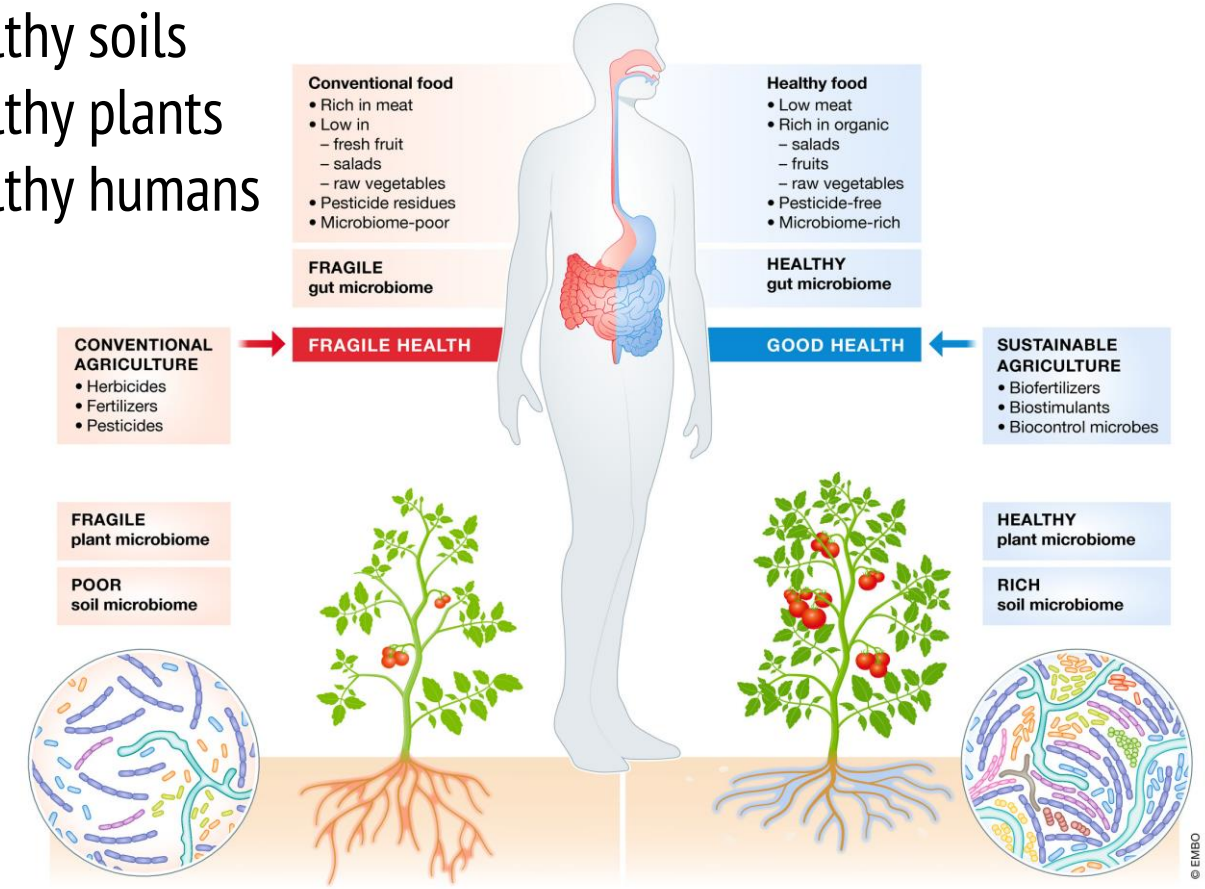
ONE HEALTH



Microorganisms as the conduit of one health components and soil microbiomes as the microbial reservoir

Banerjee, S., van der Heijden, M.G.A. Soil microbiomes and one health. Nat Rev Microbiol (2022). https://doi.org/10.1038/s41579-022-00779-w

Healthy soils
Healthy plants
Healthy humans



https://doi.org/10.15252/embr.202051069

The partnership with Rodale Institute

GLOBAL LEADER OF
REGENERATIVE ORGANIC AGRICULTURE
SINCE 1947

WHAT IS RODALE INSTITUTE?

DECADES OF SCIENTIFIC EVIDENCE

Started in 1981, Rodale Institute's Farming Systems Trial is the longest running side-by-side comparison of organic and conventional grain production systems in the world. We collect data comparing soil health, crop yields, water and energy use, profitability and nutrient density of crops. Our decades-long research has documented that organic systems use 45% less energy, release 40% fewer carbon emissions, improve the health of soil over time, and actually have the potential to produce yields up to 40% higher in times of drought compared to conventional systems.

DECENNI DI PROVE SCIENTIFICHE

Il Farming Systems Trial del Rodale Institute, iniziato nel 1981, è il più lungo studio di confronto al mondo tra i sistemi di agricoltura biologica e convenzionale per la produzione di cereali. Noi raccogliamo dati per comparare salute del suolo, produttività agricola, utilizzo di acqua ed energia, redditività e densità nutrizionale delle colture. La nostra ricerca decennale ha documentato che il sistema biologico utilizza il 45% di energia in meno, rilascia il 40% in meno di emissioni di carbonio, migliora la salute del suolo nel tempo e ha il potenziale di produrre il 40% in più di raccolti in tempi di siccità, se comparato al sistema convenzionale.

Rodale Institute is a non-profit research and education organization based in Pennsylvania, US, and dedicated to improving the health of people and the planet through organic leadership. We were founded in 1947 when J.I. Rodale wrote this equation on a blackboard:

Healthy SOIL = *Healthy* FOOD = *Healthy* PEOPLE

Ever since, we've been dedicated to putting science behind best practices for managing pests and diseases in regenerative organic agriculture while providing healthy food and adapting to and mitigating climate change.

LEADING THE WAY

Rodale Institute is a global leader in regenerative organic agriculture through a combination of scientific research, farmer training, and consumer education.

Rodale Institute è un ente no-profit di ricerca e formazione basato in Pennsylvania, negli Stati Uniti, e dedicato a migliorare la salute delle persone e del pianeta attraverso la guida del movimento biologico. Siamo stati fondati nel 1947, quando J.I. Rodale scrisse questa equazione su una lavagna:

Sano SUOLO = *Sano* CIBO = *Sane* PERSONE

Da sempre ci siamo dedicati a mettere la scienza dietro alle migliori pratiche per la gestione di parassiti e malattie nell'agricoltura biologica rigenerativa, fornendo al contempo cibo sano, adattandoci e mitigando il cambiamento climatico.

APRIRE LA STRADA

Il Rodale Institute è un leader globale per l'agricoltura biologica rigenerativa attraverso una combinazione di ricerca scientifica, formazione per gli agricoltori e per i consumatori.

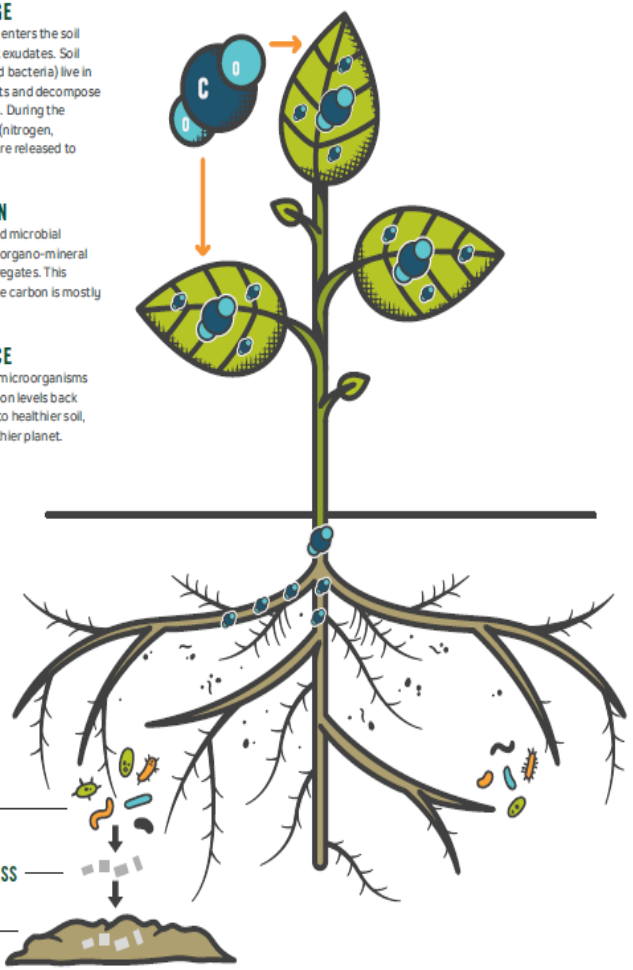
CARBON SEQUESTRATION - HOW IT WORKS

1. **PHOTOSYNTHESIS**
During photosynthesis, plants convert carbon dioxide (a gas) into sugar (carbohydrate molecules).

2. **NUTRIENT EXCHANGE**
This plant-derived carbon enters the soil in the form of litter or root exudates. Soil microorganisms (fungi and bacteria) live in association with plant roots and decompose these organic compounds. During the decomposition, nutrients (nitrogen, phosphorus, sulfur, etc.) are released to support plant growth.

3. **CAPTURING CARBON**
Microbial necromass (dead microbial biomass) can be stored in organo-mineral associations or microaggregates. This physically protected stable carbon is mostly of microbial origin.

4. **RESTORING BALANCE**
Increasing the number of microorganisms in the soil helps bring carbon levels back into balance, which leads to healthier soil, healthier food, and a healthier planet.




STOP

Objective 1

Create the first European Research and Education hub for the regenerative organic movement led by a beauty company

---

EROC is an 'open-air' lab, a soil health lighthouse destination and beacon for the regenerative organic movement

Objective 2

Search for new performing regenerative organic active ingredients for the cosmetic industry

&

Positively impact the supply chain of organic ingredients

Objective 3

Promote sustainability research focused on increasing soil carbon sequestration & biodiversity

Objective 4

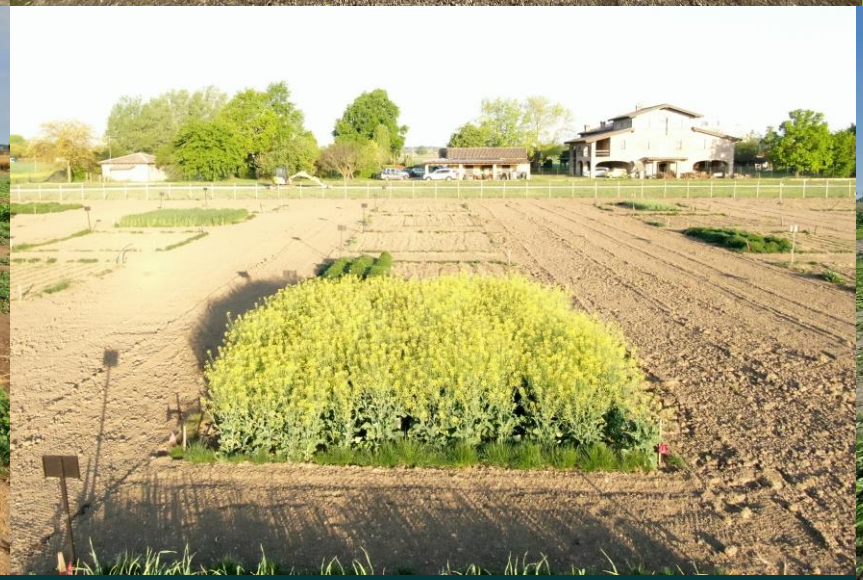
Educate farmers and the public on regenerative organic agriculture

Objective 5

Promote a higher certification standard to produce regenerative organic ingredients








DAVINES GROUP

EXPERIMENT 1

Certified B Corporation


Regenerative
Organic
Certified™

Regenerative Organic Alliance

FOUNDERS

These organizations established the Regenerative Organic Alliance and Regenerative Organic Certified®

DR. BRONNER'S ALL-ONE!®

patagonia

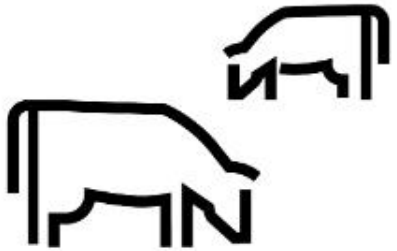
patagonia PROVISIONS®

RODALE INSTITUTE™

The Three Pillars Of Regenerative Organic Certified

Soil Health

- Builds Soil Organic Matter
- Conservation Tillage
- Cover Crops
- Crop Rotations
- No GMOs or Gene Editing
- No Soilless Systems
- No Synthetic Inputs
- Promotes Biodiversity
- Rotational Grazing



Animal Welfare

- Five Freedoms
  - Freedom from discomfort
  - Freedom from fear & distress
  - Freedom from hunger
  - Freedom from pain, injury or disease
  - Freedom to express normal behavior
- Grass-Fed / Pasture-Raised
- Limited Transport
- No CAFOs
- Suitable Shelter

Social Fairness

- Capacity Building
- Democratic Organizations
- Fair Payments for Farmers
- Freedom of Association
- Good Working Conditions
- Living Wages
- Long Term Commitments
- No Forced Labor
- Transparency and Accountability

Our Impact to Date

397
Crop Types

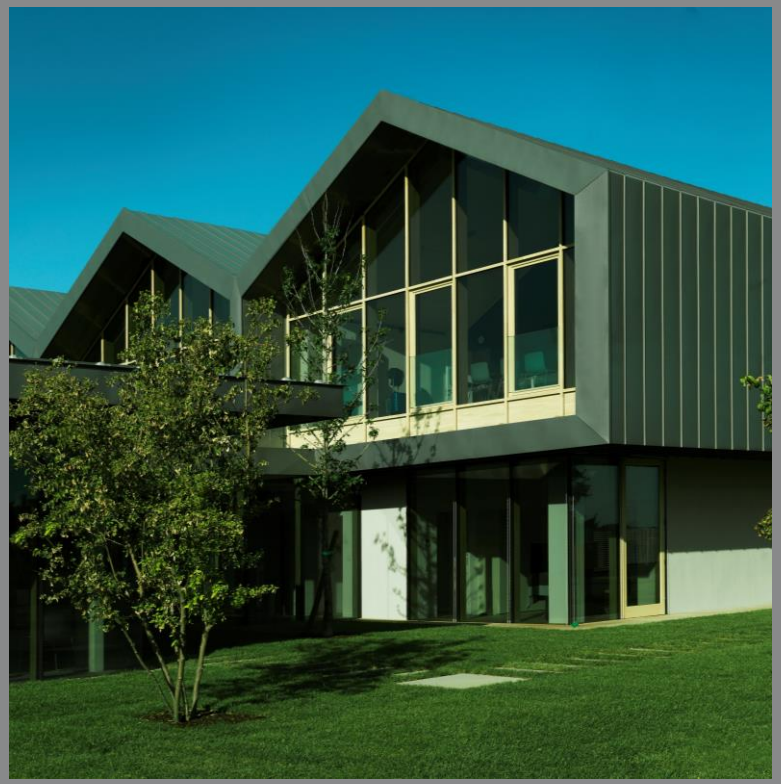
190
Farms Certified

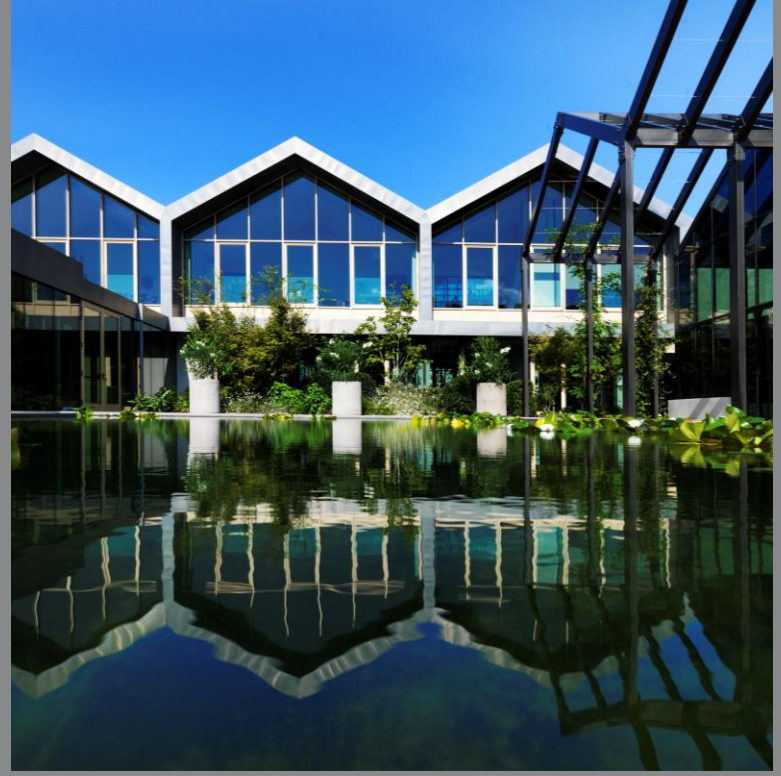
53,253
Smallholder Farmers

5,756,438
Certified Acres

1,007
Certified Products

138
Brands Licensed





DAVINES VILLAGE

davines
sustainable beauty

Certified B Corporation

[comfort zone]
conscious skin science