

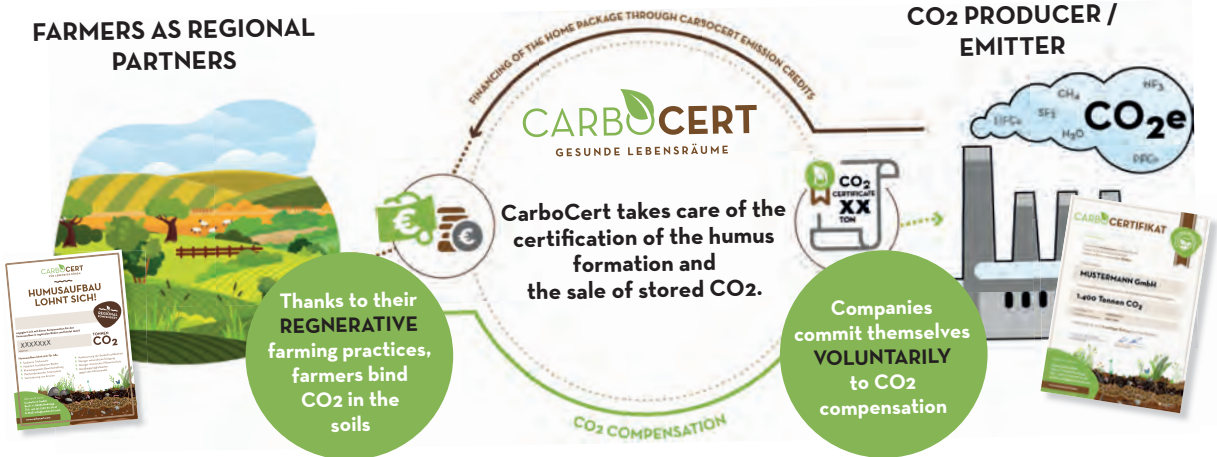
VapoCircle® and CARBOCERT join forces in humus formation



**GOOD FOR THE
PLANET.
GOOD FOR YOU
AS A FARMER.**

THIS IS HOW REGIONAL CLIMATE PROTECTION WORKS
CarboCert connects farmers and supporters intending to enable permanent humus formation in our farmland and storing CO₂ in the long term.

FARMERS AS REGIONAL PARTNERS



The partner farmers bind carbon in their soils through regenerative farming practices, humus build-up, planting hedges/trees, and thus offset CO₂ in their grassy areas and arable lands.

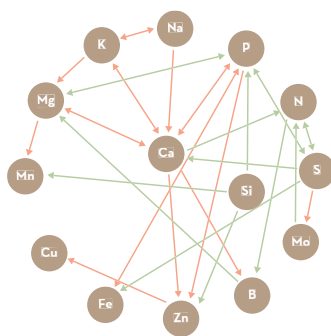
Creating economic incentives for the conversion to restorative agriculture.

The **CO₂producers** (SMEs, industrial companies, municipalities, private individuals) compensate their unavoidable CO₂ emissions directly in the region with a regional partner farmer.

BALANCING NUTRIENTS

- Balanced C/N ratio in the digestate
- Balanced sulphur supply
- Ammonium nitrogen supply instead of nitrate nitrogen
- Ideal soil-chemical foundation for humus formation

The most important nutrient interactions in the soil.



Synergy effects you can use to restore balance.

Antagonistic interactions present in your soil due to a lack of balance.

PROCEDURE OF THE HUMUS FORMATION PROGRAM

Soil sampling and soil analysis.

Procedure after the farmer has decided to participate and has signed the humus agreement.



The CO₂ quantities due to humus formation are tested and confirmed by TÜV Rheinland in accordance with ISO 14064-2.



The program runs for contract periods of 8 or up to 20 years with respective control examinations.



USE SYNERGIES & SAVE.



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Humus formation and biogas plants:
Here you can find out how it works

Maximum humus formation thanks to intelligent nutrient management

The VapoCircle® technology

PATENTED
(in Germany, Europe, USA)

Function of the depot spreading:

Application of the entire N requirement to the root zone of a crop.

- Ammonium can be spread as required or as a depot
- FarmLC can be spread irrespective of vegetation and crop
- Depot fertilisation makes use of nutrients not yet available in the soil.

CULTAN process

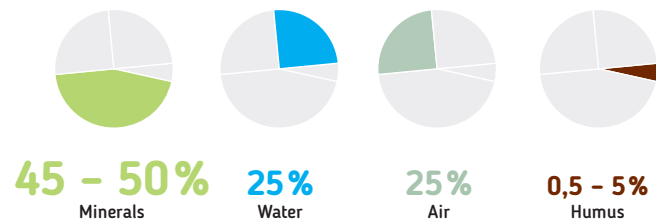


Strip Till

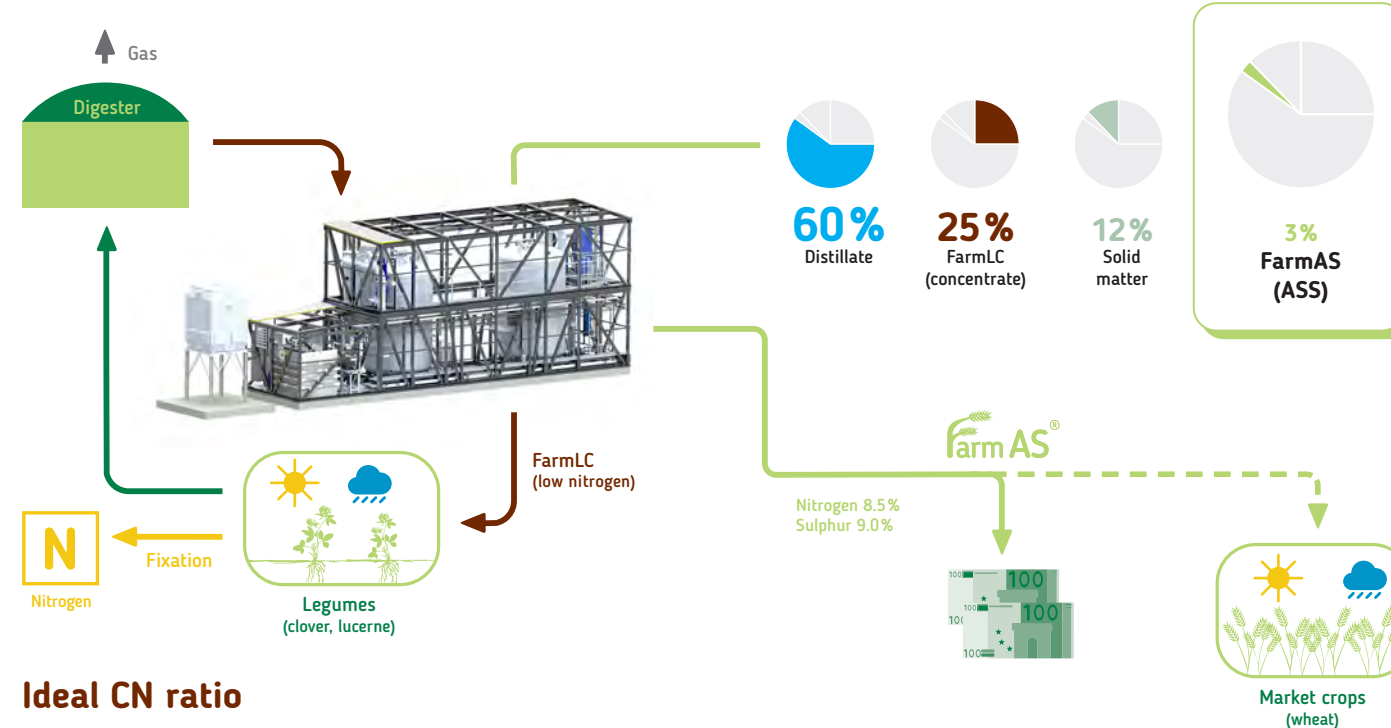


1) Fertiliser depot
2) Water depot
Source: Volmer Engineering

Ideal soil structure

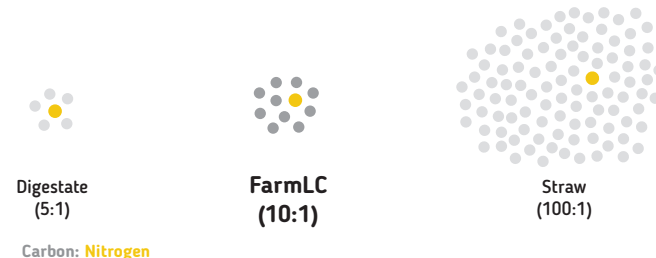


The cycle of the VapoCircle® technology



Ideal CN ratio

In high-yield soil, a C-N ratio of 20:1 is desired. Accordingly, the optimum C-N ratio in the fertiliser applied is also 20:1. Our FarmLC from the Vapogant has a C-N ratio of 10:1 and therefore comes very close to the ideal fertiliser.



Definitions:

FarmAS (ammonium sulphate)

Mineral commercial fertiliser from the Vapogant
Nutrients: 8.5% N, 9% S --> Exceeds the minimum requirements of the Fertiliser Act

FarmLC (liquid compost)
Composition CN ratio: 10:1

VAPOCircle
Technologie

Crop farming USPs: ASS fertiliser

- **Sulphur fertilisation**
 - Kinsey method recommends 100 – 200kg sulphur per ha per year
 - Improved humus formation thanks to increased activity of soil life
- **Activity of soil life**
- **Protein formation in the plant**
Sulphur promotes protein content in crops
- **Lower nitrate values – nitrogen**
ASS contains 100% ammonium nitrogen
- **Drought**
ASS does not need to be dissolved, but is immediately in the soil on the plant
- **Savings**
up to 20% savings by reducing N losses through outgassing and washing out

CONCLUSION

In conjunction with the Vapogant nutrient manager, legumes provide nitrogen for the production of our FarmAS mineral fertiliser.



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