EUROFEMA

European Organic Fertilizer Manufacturers Association

Carbon Footprint of Organic Fertilisers

About EUROFEMA

Venice, 2007: several European organic fertiliser producers founded EUROFEMA in order to promote their interests at EU level.

EUROFEMA is a primarily a confederation of national associations of MANUFACTURERS of organic and organic-mineral fertilizers.

In 2022 interested individual companies can join EUROFEMA as a observer if the member state in which it resides does not have a association

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belgische federatie voor organische meststoffen
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Industrieverband Garten (IVG) e.V.
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FOMA

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The Analysis

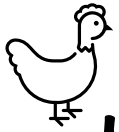
- Cradle to factory gate of organic fertilisers
- Based on LCA databases and members specific data
- European Product Environmental Footprint (PEF) method (no CO2 compensation of natural gas / cut-off for manures)
- CO2 emmissions as result of the application of lime and Urea are considered
- Blonk Consultants and EUROFEMA

Some perspective

Kg CO2 eq / Kg Product:

12,7 

42,7 

6,8 

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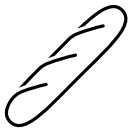
0,9 

0,12 

Raw materials

- Animal manures
- Animal meals – blood, bone, feather
- Plantbased – Soy, DDGS, corn, cacaoshells, grape kern meal ……
- Vinasse pottasium
- Minerals – Kieserite, zeolite, bentonite, limes
- Mineral fertilizers

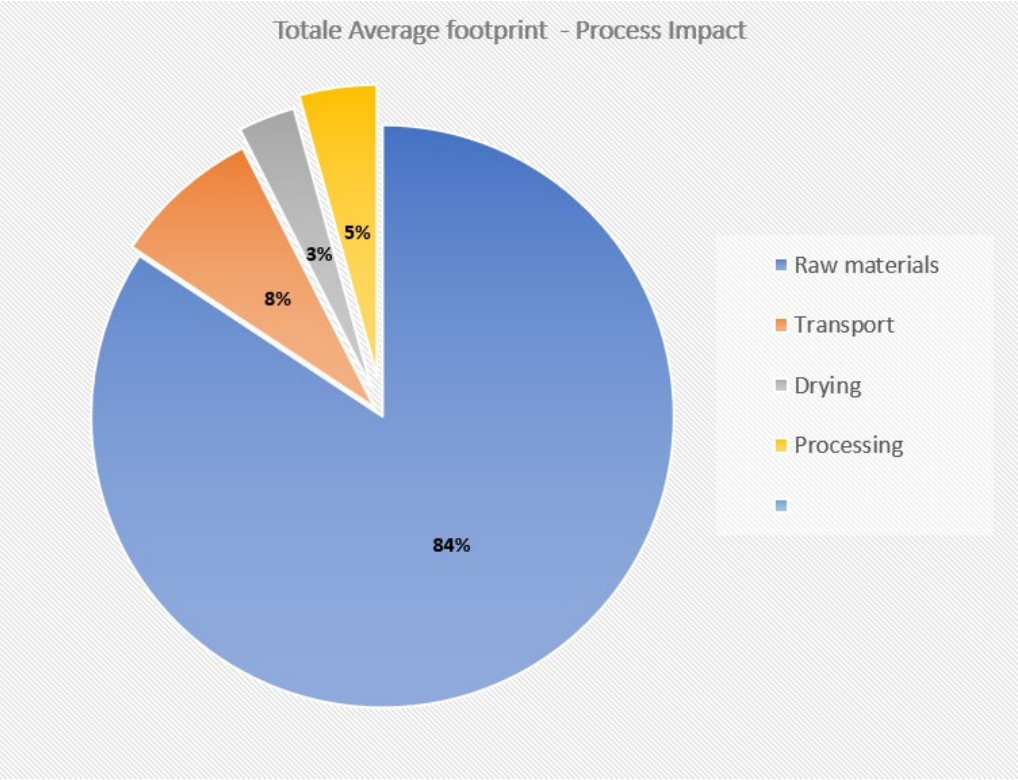
CO2 eq / Kg – raw materials

LCA + TRANSPORT + APPLICATION + Drying to 90% DM = CO2 eq / Kg

• UREA	1,40 Kg CO2 eq / Kg
• BLOODMEAL	2,52 Kg CO2 eq / Kg
• SOY	4,30 Kg CO2 eq / Kg
• HAIRMEAL	0,42 Kg CO2 eq / Kg
• GRAPEKERNMEAL	0,05 Kg CO2 eq / Kg
• CHICKEN MANURE	0,08 Kg CO2 eq / Kg
• FEATHERMEAL	0,40 Kg CO2 eq / Kg

CO2 eq / Kg – Processing

Water + Electricity + Gas + Diesel = CO2 eq / Kg



CO2 eq / Kg – Recipe

Raw materials + Processing + Ratios = CO2 Eq / Kg finished product

• Mineral fertiliser 14-6-8	1,05 Kg CO2 eq / Kg
• Organic mineral fertiliser 10-4-8+3MgO	0,52 Kg CO2 eq / Kg
• Plantbased fertiliser 5-2-4 - A	0,13 Kg CO2 eq / Kg
• Plantbased fertiliser 5-2-4 - B	0,86 Kg CO2 eq / Kg
• Bio fertiliser 7-3-4+3MgO	0,55 Kg CO2 eq / Kg
• Chicken manure pellet 4-3-2	0,18 Kg CO2 eq / Kg

CO2 eq / Kg – To Consider !

- Application ratio: 14-6-8   x/kg per Ha vs 7-3-4 x/kg /ha
- Packaging materials
- Transport ex-gate
- Compensation on total footprint

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