Labelling: how to communicate about quality products?

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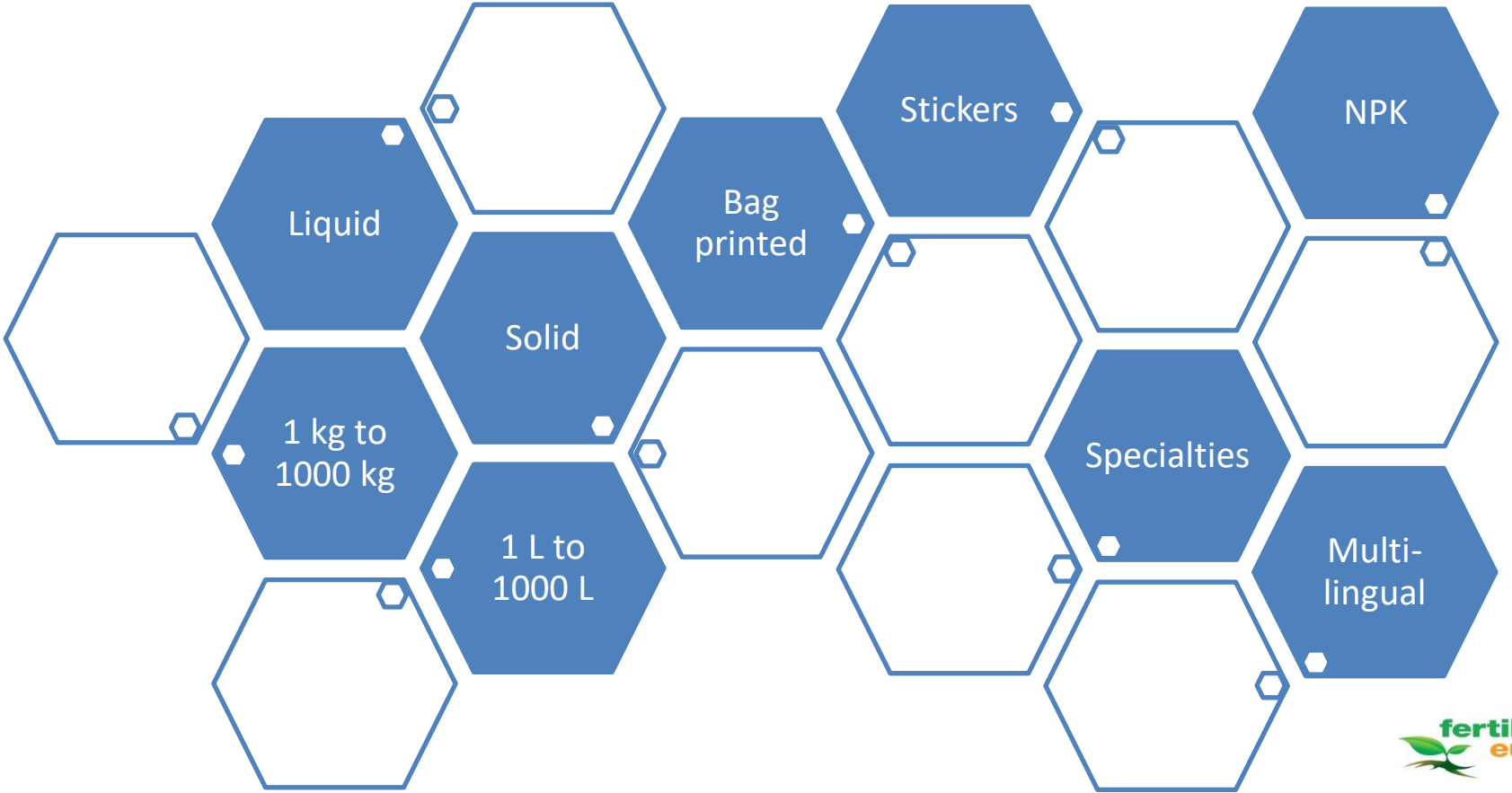
Label, label or label?



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Who is Fertilizers Europe

EU Fertilizer industry in numbers

Turnover: 10.9 billion euro*

Total investment: 1.3 billion euro*

Total employment: 78,500 people

Production sites: > 120

** Annual average last 5 years, source: Fertilizers Europe 2017/18 overview*

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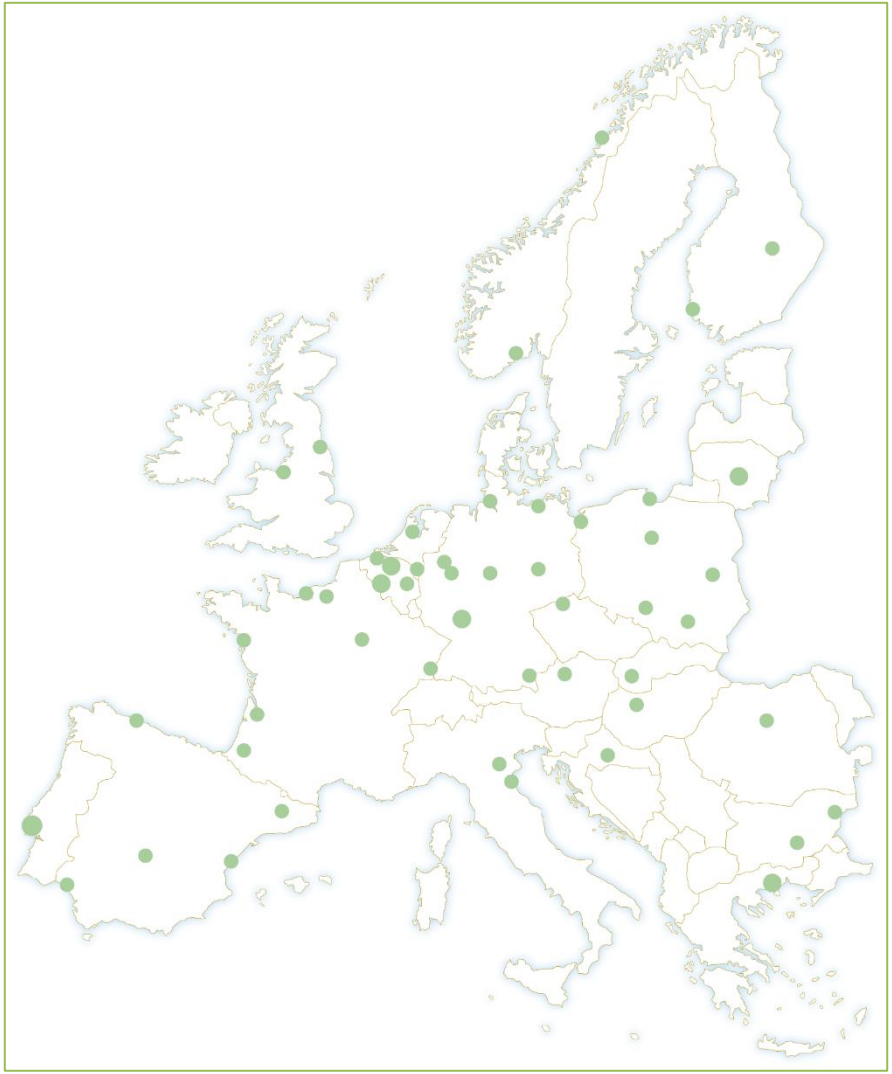


Mineral fertilizers
What's on the label today?

Compulsory	Optional
- EC FERTILISER (in capitals) - Designation of the type of fertilisers - Declared nutrients (both with words and symbols) + declared content in % by mass, forms, solubility - Specific directions to use (only for micronutrients) - Quantity - Name + adress of manufacturers	- Other nutrients/ other forms - Directions for storage and handling - Specific directions to use (for other products than micronutrients) - Indications of dose rates and conditions of use suitable for the soil and crop conditions - Mark of the manufacturers and trade description of the products

+ Requirements coming from Classification, Labelling and Packaging (CLP) Regulation

Mineral fertilizers
How does it look today?

Virtual example

WSF

23-6-10+2.7MgO+TE

(23-2.6-8.3+1.6Mg+TE)

EC FERTILISER - NPK (Mg) Fertiliser with micro-nutrients, blend, 23-6-10 (+2.7) / 23-2.6-8.3 (+1.6)

23 % **TOTAL NITROGEN (N)**
11.7 % Nitric nitrogen; 11.0 % Ammoniacal nitrogen.

6 % **PHOSPHORUS PENTOXIDE (P_2O_5) (= 2.6 % P)**
Soluble in neutral ammonium citrate and in water.
6.0 % P_2O_5 (= 2.6 % P) water soluble.

10 % **POTASSIUM OXIDE (K_2O) (= 8.3 % K)** Water soluble.

2.7 % **MAGNESIUM OXIDE (MgO) (= 1.6 % Mg)** Water soluble.

Low in chloride.

GB / IE

Micro-nutrients are completely water soluble: 0.01 % Boron (B) 0.010 % Copper (Cu) chelated by EDTA / 0.10 % Iron (Fe) chelated by EDTA / 0.04 % Manganese (Mn) chelated by EDTA / 0.001% Molybdenum (Mo) / 0.010% Zinc (Zn) chelated by EDTA.

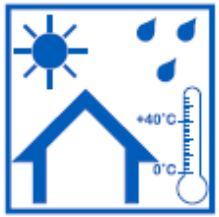
WARNING: H319: Causes serious eye irritation. H272: May intensify fire; oxidiser. P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P221: Take any precaution to avoid mixing with combustibles. P280: Wear protective gloves/protective clothing/eye protection/face protection. P337+P313: If eye irritation persists: Get medical advice/attention.

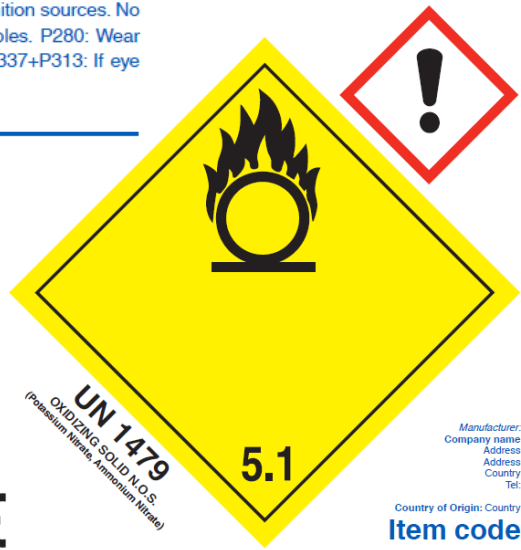
FOR PROFESSIONAL USE ONLY.

CAUTION: Keep out of reach of children.

INFO

Emergency Telephone Number:
+XX XXXX XXX XXX
(24-hour response number)





CE

Manufacturer:
Company name
Address
Address
Country
Tel:

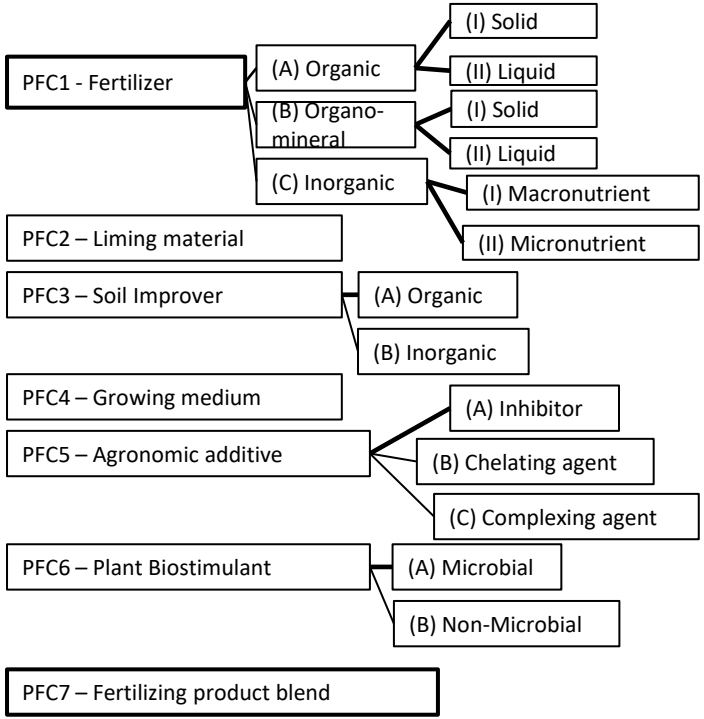
Country of Origin: Country

Item code

In the Fertilizing Products Regulation

A CE marked fertilizer belongs to….

Product Function Categories



A CE marked fertilizer is composed of….

Component Material Categories

- CMC 1: Virgin material substances and mixtures
- CMC 2: Non-processed or mechanically processed plants
- CMC 3: Compost
- CMC 4: Energy crop digestate
- CMC 5: Other digestate
- CMC 6: Food industry by-products
- CMC 7: Micro-organisms
- CMC 8: Agronomic additives
- CMC 9: Nutrient polymers
- CMC 10: Other polymers
- CMC 11: Certain animal by-products

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What's new today? For all products

Instructions for intended use, including application rates, timing and frequency, and target plants or mushrooms

A list of all ingredients above 5 % by product weight in descending order of magnitude by dry weight, including the designations of the relevant CMCs

For CRF, the 'functionality period' (not longer than the period between two applications)

Recommended storage conditions

Any relevant information on measures recommended to manage risks to human, animal or plant health, to safety or to the environment

What’s new today? For mineral fertilizers

"mineral fertiliser" if the fertiliser belongs to PFC 1(C) and fulfils the following additional conditions (organic carbon, P solubility and N forms)

Where urea (CH_4N_2O) is present, information about the possible air quality impacts of the release of ammonia from the fertiliser use, and an invitation to users to apply appropriate remediation measures

Granulometry

For coated solid mineral macronutrient fertilisers, the name of the coating agents and the percentage of fertiliser coated by each coating agent shall be indicated

Form of the physical unit of the product

Mineral fertilizers
How it could look like tomorrow

WSF

23-6-10+2.7MgO+TE

(23-2.6-8.3+1.6Mg+TE)

Virtual example

GB / IE

EU FERTILISING PRODUCT – Solid inorganic mineral macronutrient NPK (Mg) fertiliser with micro-nutrients, 23-6-10 (+2.7) / 23-2.6-8.3 (+1.6)

23 % **TOTAL NITROGEN (N)**
11.7 % Nitrogen in the form of nitric nitrogen;
11.0 % Nitrogen in the form of ammoniacal nitrogen.
0.3 % Nitrogen in the form of urea nitrogen.
6 % **TOTAL PHOSPHORUS PENTOXIDE (P_2O_5) (= 2.6 % P)**
6.0 % Water-soluble phosphorus pentoxide (P_2O_5) (= 2.6 % P). 6.0 % Phosphorus pentoxide (P_2O_5) soluble in neutral ammonium citrate (= 2.6 % P)
10 % **WATER SOLUBLE POTASSIUM OXIDE (K_2O) (= 8.3 % K)**
2.7 % **MAGNESIUM OXIDE (MgO) (= 1.6 % Mg)** Water soluble.

Poor in Chloride

Micro-nutrients are completely water soluble: 0.01 % Boron (B) as Borate / 0.010 % Copper (Cu) chelated by EDTA / 0.10 % Iron (Fe) chelated by EDTA / 0.04 % Manganese (Mn) chelated by EDTA / 0.001% Molybdenum (Mo) as Molybdate / 0.010% Zinc (Zn) chelated by EDTA.

To be used only where there is a recognized need. Do not exceed the application rate.

Due to the low level of urea present in the formula and the daily dosage of nutrients the air quality of this product will be negligible.

WARNING: H272: May intensify fire; oxidizer. H319: Causes serious eye irritation. P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P221: Take any precaution to avoid mixing with combustibles. P280: Wear protective gloves/protective clothing/eye protection/face protection. P337+P313: If eye irritation persists: Get medical advice/attention.

Instructions and application rates:

This product is advised at the beginning of crop cycle, just after application of X (high phosphate content).
For strong growing crops this product can be used for a longer period of time.

Advise for pot and bedding plants	Dosage
Crops with high fertilizer demands	1.0 – 2.0 g/l
Crops with average fertilizer demands	1.0 – 1.5 g/l
Salt sensitive crops	0.5 – 1.0 g/l

Advise for container nursery	Dosage
Crops with high fertilizer demands	20 g/m²/week
Crops with average fertilizer demands	15 g/m²/week
Salt sensitive crops	10 g/m²/week

Contact company or company's distributor for more specific recommendations.
www.website.com.

Granulometry: powder. 90% of the product passes through sieve of 1 mm.
Containing: Ammonium nitrate (CMC 1), Potassium nitrate (CMC 1), Mono Ammonium Phosphate (CMC 1), Magnesium Sulphate (CMC 1)
Storage conditions: Store the product in a dry and well-ventilated space out of direct sunlight. Storage temperature 0°- 40°C. Partly used or damaged bags should be closed well.

CE

Manufacturer:
Company name
Address
Address
Country
Tel:

Country of Origin: Country

Item code

How to deal with this?

- How to organize so much information, on one label, while still providing valuable information to the farmers
- Commission guidance document will certainly help
- Task Force preparing the Guidance
- Release planned for Summer 2020

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What about QR codes?

- QR codes are not foreseen to be used in the FPR
- Need for a more globalized approach within stakeholders from all sectors ➔ “Smart tags”
- Digitalization is certainly a topic of interest at EU and national levels

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Upcoming challenges

Quality *vs.*
Low nutrient level required

Precision agriculture *vs.*
Intended use (crop, rate, timing)

Quality / environmental claims

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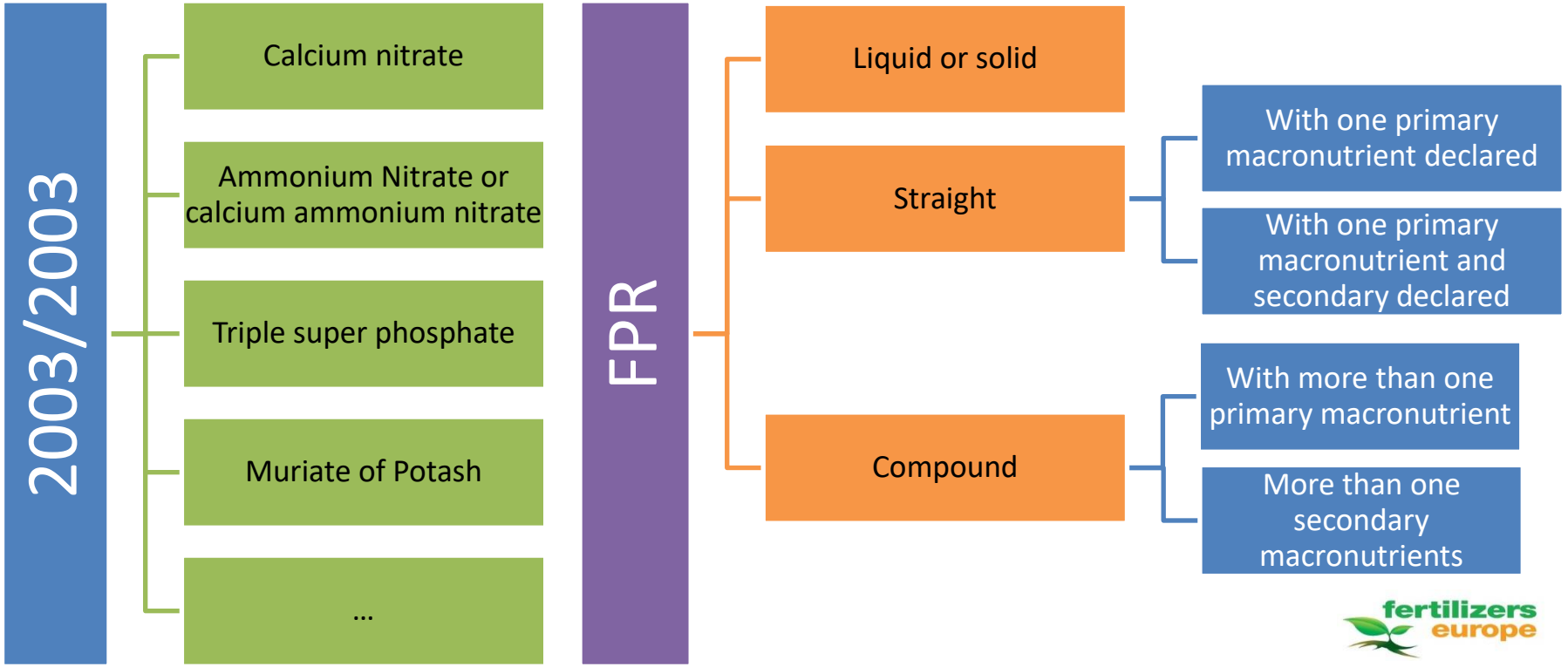
Low nutrient level vs quality

- Nutrient levels by groups and not any more per product type



Nutrient levels in annex I – solid fertilizers

Type of fertilizers	PFC 1(C)(I)(A)(I): STRAIGHT FERTILISER			PFC 1(C)(I)(A)(II): COMPOUND FERTILISER
Definition	EU fertilising product contains **only one declared macronutrient**			EU fertilizing product have a declared content of : **(a) more than one primary macronutrient OR** **(b) more than one secondary macronutrient and no primary macronutrient**
Nutrient levels	N: 10% P_2O_5: 12% K_2O: 6%	MgO: 5% CaO: 12% SO_3: 10%	N: 3% P_2O_5: 3% K_2O: 3%	MgO: 1.5% CaO: 1.5% SO_3: 1.5%
	Na_2O: 1% **to max 40%**			
Total sum	/		**Minimum 18%**	

UREA, MOP

CAN, TSP, Polyhalite (if secondary macronutrients declared)

NPKs

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Intended use vs precision farming

- Biggest challenge
- **Fertilization is crop / site / soil / climate specific**
- Request to have general recommendation of target crop, rate and timing goes simply against this agronomic principle
- It also goes against the increased expectations and efforts of farmers towards targeted fertilization (e.g. FaST for nutrients)

What would be the value for farmer to have very general recommendations, which are not adapted to their crops, soils, farm situations?

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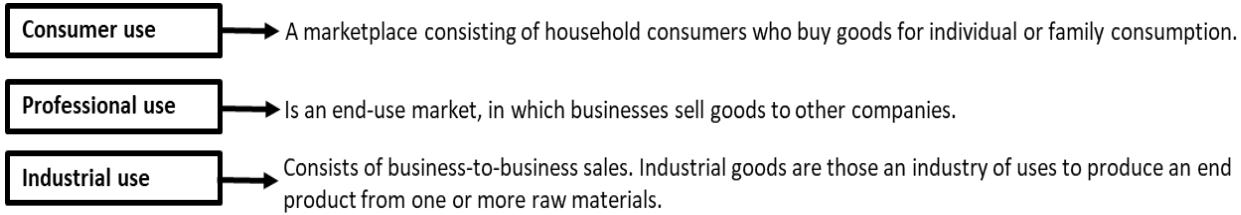
Suggestion :
A differentiation between the various end markets (?)

- There are various potential uses for the different fertilising products falling under the scope of FPR.



- Each of the markets should have a different approach in relating to the application rates.
  - Consumer use market (i.e. week-end gardeners): detailed information concerning application rates per crop should be shown.
  - Professional use market (i.e. farmers): the label should show general application rates and a reference sentence: "*Contact company X or company's X distributor for more specific recommendations*".
  - Industrial market (i.e. B-to-B): the label should state a reference sentence (e.g.): "*This product is for further processing to a finished fertilising product and not for direct application/use available at moment*."

Environmental claims?

- More concentrated products = more nutrients for the crop and less inert material
- Plant available nutrients + nutrient management tools = less losses to the environment / less pollution

- *Regulation foresees that information other than the labelling information required shall not make claims such as 'sustainable' or 'environmentally friendly' unless such claims refer to legislation, or clearly identified guidelines, standards or schemes, with which the EU fertilising product complies;*

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Legislation, identified guidelines, standards or schemes ?

- Nutrient management tools potentially included in the next CAP
  ➔ Farm Sustainability Tool for Nutrients
- Willingness / need for an industry coordinated approach?

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Other points to de clarified

- How to label products with more than one function ?
- Ingredients list
- Undeclared N & P nutrients (but indicated above 0,5%)
- Maximum Residue Limits requirements
- Nutrients in biostimulants

Conclusions

- Labelling will be more challenging
- Guidance document is work in progress
- It is time to start preparing

For more information

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