



Plasticulture

Alliance for Nature

The plasticulture industry's commitment toward circularity. *To share a vision for a new plasticulture*

Bernard Le Moine
President
APE Europe





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Agriculture : a key sector

Without plastics major production will be jeopardized:
Fruit and vegetable, animal production, textile (cotton...)

Plasticulture in Europe	Tons New	%	Tons Used	%
Vegetable production				
Greenhouses	117 000	17%	146 250	13%
Small tunnels	56 310	8%	112 620	10%
Mulching	77 150	11%	231 450	20%
Bio	3 000	0%	-	0%
Oxo	8 000	1%	-	0%
Irrigation pipe <400µ	20 000	3%	24 000	2%
Tube with driper	20 000	3%	24 000	2%
Non woven	5 000	1%	10 000	1%
Protective net	4 500	1%	4 950	0%
Total	310 960	44%	553 270	48%
Animal production				
Silages	120 950	17%	181 425	16%
Stretch film	145 900	21%	218 850	19%
Bale net	50 000	7%	75 000	7%
Twine	80 000	11%	120 000	10%
Total	396 850	56%	595 275	52%
Gran total	707 810	100%	1 148 545	100%

Plasticulture in Europe	Tons New	%	Tons Used	%
Total Films	533 310	75%	900 595	78%
Total pipe	40 000	6%	48 000	4%
Total net	54 500	8%	79 950	7%
Total Twines	80 000	11%	120 000	10%
LDPE	573 310	81%	948 595	
PEHD	54 500	8%	79 950	
PP	80 000	11%	120 000	





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The multiple advantages of plastics in agriculture

- Resource efficiency *(costs, pesticides, fertilizers, water, energy, land...)*
- Increase production in quantities and quality
- Reduce the environmental impact of the agricultural production





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Miraculous Material





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Without a proper end-of-life management, agri-plastic may cause severe damage to the environment:

1. burying, burning, landfilling
2. stored on the edge of fields, in dry riverbed, flied by the wind
3. In the water flow to the ocean
4. left on the field with accumulating effect=
 - Soil structure change,
 - Root system change, yield reduction (8/12%),
4. etc.

no solution is not an option,



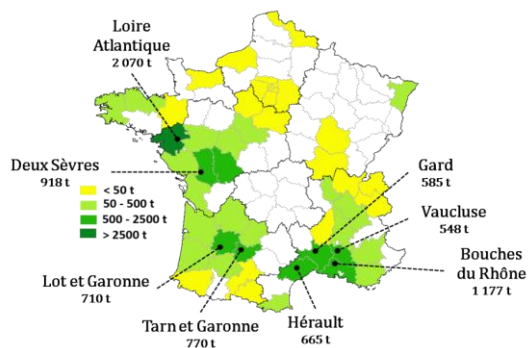


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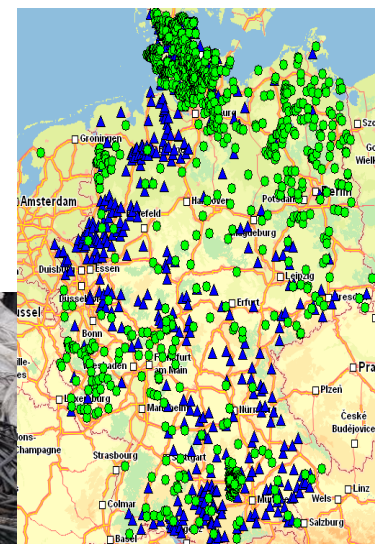
Farmers and growers deserve solutions. They are made to produce, not to manage waste.
to provide solutions is a collective responsibility for a reliable and sustainable end of life management.

“It is possible to tackle plastic pollution from agriculture”



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Waste characteristics : Agri-plastic waste maybe highly contaminated
(soil, sand, organic, water...)





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Plasticulture: What stake for circularity?

- collected & sorted plastics waste;
 - the recyclers' inputs and outputs
 - the converters' inputs and outputs of the use in market segments of recycled plastics
- Since 2009, the Plasticulture industry is involved in different actions plans to increase collected volume, waste quality and integration of recycled in new products.



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NATIONAL COLLECTING SCHEME: The European model

The plasticulture industry is committed into NCS:

France, Germany, Eire, Sweden, Norway...

2019: UK,

2020: Spain

Principle:

- Under the Extended Producer Responsibility's frame
- As a shared responsibility between economics actors: farmers, distributors and industry
- Cost internalization
- R&D programs

➤ 80% collecting rate, 95% recycled.



Spain



Germany



Eire



France



Sweden



Norway



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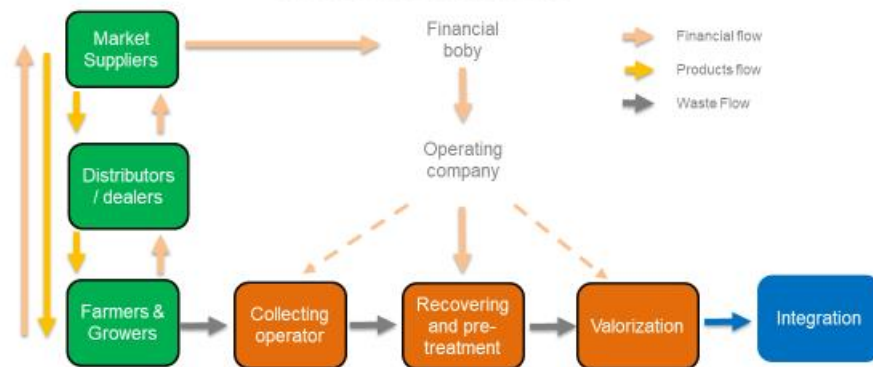
A shared responsibility



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National collecting scheme





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Research & development

- Waste reduction at source

1. Ecoconception
2. Good practices
3. Biodegradable

4. Soil contamination reduction:

Thickness, multilayers, Integration of EoL

*Dissemination national and international
Development*

Material and equipment innovations RAFU

➤ 0 Plastics to nature

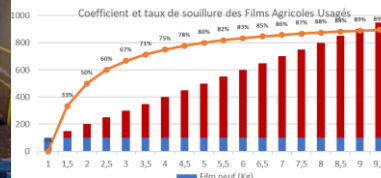
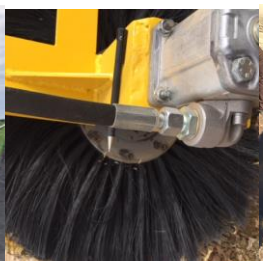
- Give back value to the waste

1. Pretreatment
2. Integration

(shredding and cleaning, recycling guaranteed!)

Homogeneous polymer, larger quantities and better quality

➤ 100% Recycled





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Recycling

- Homogeneous polymer
- Important quantities
- Regular quality
- Collected, recycled plastics can be integrated in new products



Agri-plastic waste as a resource





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Circular Plastics Alliance Why?

- 27 Millions of tons collected in Europe each year
- Less than 1/3rd is recycled
- Barely 4 MT of recycled plastics are used per year
- This is hardly 8% of the EU market for plastics
- The European Plastics Strategy targets:
10 MT per year by 2025 *150% increase*



The Circular Plastic Alliance has endorsed this target, working together along the value chain can make it possible.

One vision: Zero plastic waste to nature.



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- APE Europe has signed the Circular Plastic Alliance Declaration

- 0 Plastic to nature
- 100% Recycled

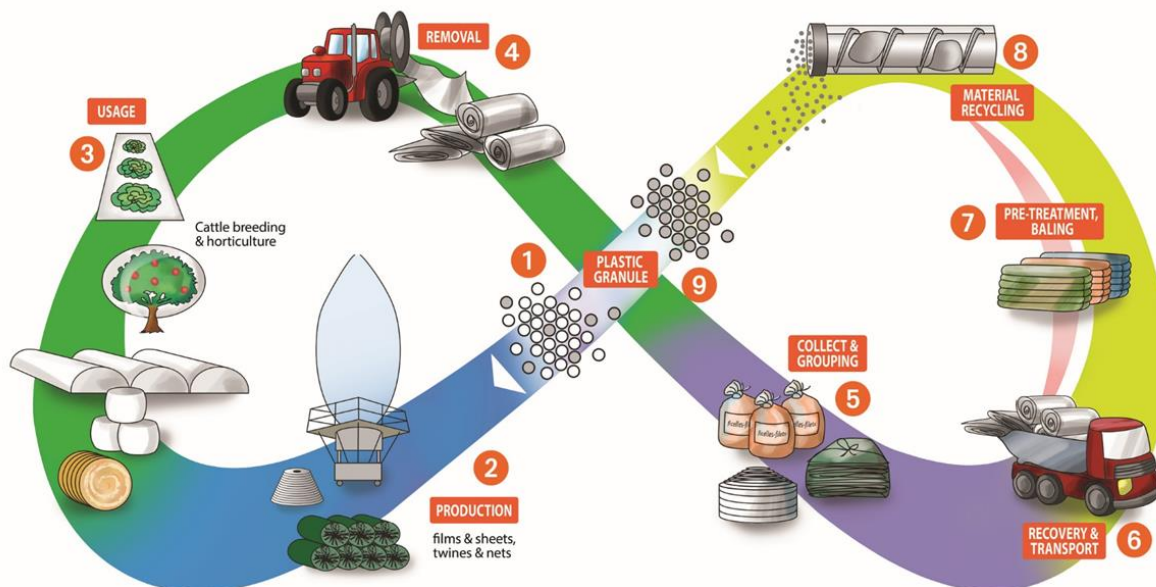


➤ “We have to use plastic in a smarter way” Elzbieta Bienkowska, European Commissioner



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The plastic contribution for an Intensive Ecological Agriculture and the Circular Economy
in 9 steps



Plasticulture improves production using less pesticides, fertilizers, water, etc. The plasticulture community is involved in the environmental protection, reducing the negative impact of the agricultural production: how to produce more with less?

Plasticultors are highly aware of their environmental responsibility for an efficient waste management

Plastics are made of very high quality polymers, easy to recycle, It would be particularly damaging for our economies to waste them while raw materials have to be more and more saved and well handed,




Plasticulture 2020

- **Plastic and biocontrol**
Plastique et biocontrôle
Plastico y bio-control




European association for plastics in agriculture

- Promoting technical use of plastic in agriculture
- Developing national collecting schemes
- 80% of European market
- Non packaging: films, nets, twine, irrigation pipe...
- Favorable to voluntary national collecting schemes
- Signatory of Marine Litter and the Circular Plastic Alliance