

PRESS KIT 2015



Agrobiobase Award

Reward and Promote innovation in bio-based products

Award presented April 9th 2015, Lille Grand Palais (France)

*Organized
by*



*Under the auspices
of*



*With the support
of*



*With the cooperation
of*





Valagro Carbone Renouvelable wins the Agrobiobase award 2015 with its fully bio-based superabsorbent.

Valagro Carbone Renouvelable wins the third edition of the Agrobiobase award. The 100% bio-based super-absorbent, developed by the R&D center of Poitiers, is distinguished by its innovative feature, its bio-based content and its environmental and socio-economic impact.



SAP-BIO-09 is the name of the superabsorbent* developed by an IAR cluster's member: Valagro Carbone Renouvelable.

From corn to diapers

Developed from itaconic acid, obtained by fermentation of corn by-products, the bio-based superabsorbent SAP-BIO-09 can effectively replace petrochemical ones.

Valagro Carbone Renouvelable researches the best three-dimensional structure (crosslinked polymer) of itaconic acid to obtain the best possible absorption capacity; so a product that absorbs a large quantity of liquid very quickly and without release.

SAP-BIO-09 can be used in products requiring high absorption capacity, like diapers, absorbent paper, cosmetics gelling agents, cooling textile fibres, artificial snow, sanitary napkins, hydrating gels burns, temporary protection against flooding, urinals disposable, gel lighter, nutrient solutions for soil or plants.

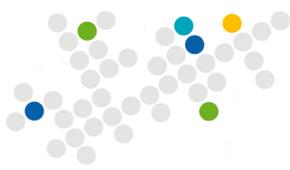
Currently at the pilot scale, Valagro Carbone Renouvelable now approaches industrials for the scaling up.



Award ceremony

Elected by the participants of the international congress Plant-Based Summit held in Lille (France) last April 8 & 9, Valagro Carbone Renouvelable received the Agrobiobase award and a € 5,000 financial support. This third edition of Agrobiobase award is organized by IAR Cluster, under the auspices of the French Ministry of Agriculture, Agrifood and Forestry, with the support of ACDV, and with the cooperation of Formule Verte

* A superabsorbent is a material able to absorb more than 20 times its weight in water.



Agrobiobase

Developed by IAR, Agrobiobase is an online showcase of bio-based products, improving contacts between suppliers and users of plant-based solutions, at the international scale. Launched in September 2010, this unique and innovative tool promotes the development of bio-based products. About 300 products are today listed, proposed by 80 suppliers from 12 countries. (www.agrobiobase.com)

About IAR cluster (www.iar-pole.com)

IAR is the gateway to the French Bioeconomy. IAR's members aim at valorising plant based innovation for concrete industrial applications. The objective is to conceive different and sustainable biobased products and materials that will be used in the manufacturing of tomorrow's goods.

From the idea to the development, searching financing, IAR Cluster supports project leaders. Projects lean on the model of biorefinery.

IAR gathers more than 300 members from the whole field of biorefinery, and is a European reference in the European Bioeconomy.

About Valagro Carbone Renouvelable : (<http://www.valagro-rd.com/>)

Valagro is a R & D center dedicated to biomass, byproducts and industrial waste valorization.

Our mission is to support Industrial innovation with processes based on green and sustainable chemistry:

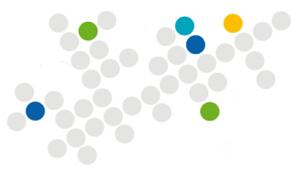
- substitute petrochemical components with biobased molecules,
- waste and byproducts valorization,
- eco-designed processes.

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Agenda

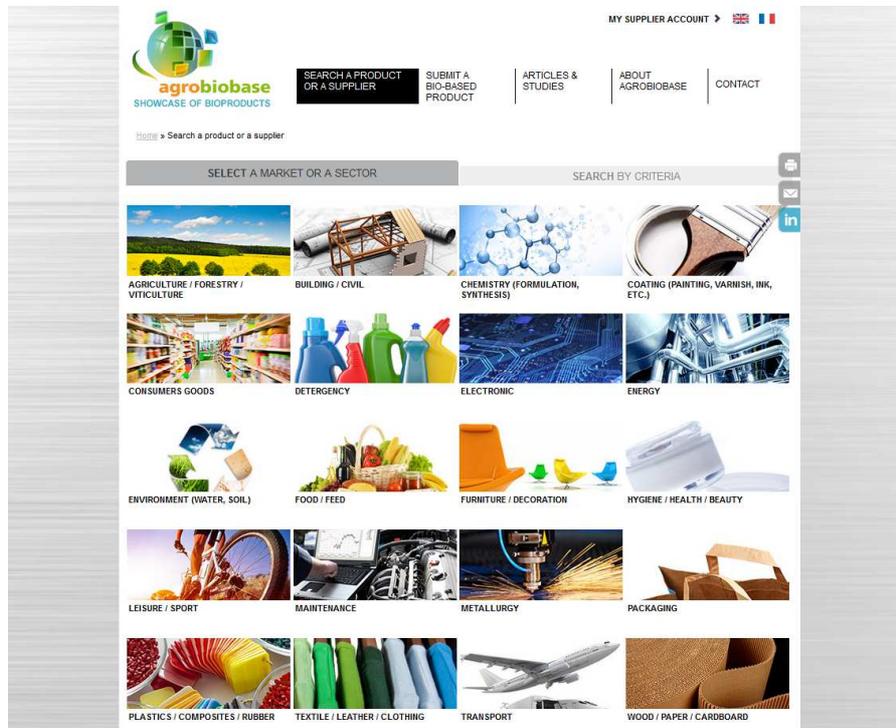
1. Presentation of Agrobiobase Award 2015
2. Composition of the jury 2015
3. The winner, finalists and applicants 2015
4. Partners



1- Presentation of Agrobiobase Award

1. AGROBIOBASE, to learn more about bio-based products (www.agrobiobase.com)

Agrobiobase, service of the competitiveness cluster Industries & Agro-Ressources, is an international database on bio-based products, launched in September 2010.



The website lists about 300 bio-based products through datasheets and thematic issues. It contributes to the implementation of innovative technical solutions, enabling the relationship between suppliers and customers at international level.

Product profile gives description of the product with its environmental benefits, its bio-based content, as well as technical data and supplier contact.

Special reports provide further information on bio-based products, application markets and product families: market data, gains of use, applications, and specifications.

This service is open to all companies.

Agrobiobase in few numbers:

About **300** bio-based products

3 000 unique visitors per month

30% of consultations are internationally



2. A prize to reward, encourage and support innovation in bio-based products

Organized by IAR Cluster, under the auspices of the French Ministry of Agriculture, Agrifood and Forestry, with the support of ACDV, and with the cooperation of Formule Verte, 11 applications were submitted for this second edition.

The Agrobiobase award is given for innovations in the plant sector. It rewards a company that has developed an innovative bio-based product.

This award provides financial support to the winning company and contributes to its recognition in the world of bio-based products.

The bio-based product is evaluated according to three criteria:

- its innovative features,
- its bio-based content,
- its environmental and socio-economic impact.

4 finalists are selected by a Jury and submitted to public vote.

For the 2015 edition, about 100 professional attendees of the International Congress Plant Based Summit (April 8-9, 2015, Lille Grand Palais, France) elected the winner.

The winner has received financial support in the amount of 5,000 euros and press coverage.



Credit photo : C. JUMIEZ / ACDV

Agrobiobase Award 2015 ceremony



2- Composition of the jury 2015

Chaired by Thierry STADLER, the jury was composed this year of following experts:

Thierry STADLER	Competitiveness cluster Industries & Agro-Ressources
Julien DUGUE	French Ministry of agriculture, food and forestry
Eric FIRTION	French Association Chimie Du Végétal
Bruno JARRY	Academy of Technologies of France
Sylvie LATIEULE	Magazine Formule Verte



3- The winner, finalists and applicants 2015

11 applications → 4 finalists → 1 winner

In gold the winner / In blue the finalists / In black the applicants

Product	Company	Nationality
<p>Biobased super-absorbant SAP-BIO-09</p> <p>Fully biobased super-absorbant (SAP) polymer, presenting excellent absorbing capacities of water and urina and can be used in diapers, cosmetic gelling agents, hydrating gel burns, etc.</p>	<p>Valagro Carbone Renouvelable</p>	<p>France</p>
<p>BELOUKHA</p> <p>Biocontrol crop protection product with grass control, dessiccation and moss control effects (on hard surfaces) for Agriculture</p>	<p>JADE (Jardin & Agriculture Développement)</p>	<p>France</p>
<p>Edulis Exudactive®</p> <p>Concentrated active ingredient for dermo-cosmetic application. It offers an unmet yield of dermo-active 3,5DCQA content thanks to the Plant Milking® technology</p>	<p>Plant Advanced Technologies</p>	<p>France</p>
<p>PLHT 201</p> <p>PLA grade with excellent mechanical properties, impact resistance, and thermal stability (above 100°C)</p>	<p>Natureplast</p>	<p>France</p>
<p>ARBOCEL P 4000</p> <p>The ARBOCEL P 4000 is one of all the ARBOCEL range we propose. ARBOCEL is a range of cellulose fibers with many functions and marketed in multiple applications.</p>	<p>J. RETTENMAIER & SÖHNE (JRS)</p>	<p>Germany</p>
<p>MinervPHA</p> <p>MINERV-PHA is a high-performance PHA biopolymer. MINERV-PHA is endowed with optimal thermal properties. Production needs which range from -10°C to a +180°C can be met through characterization. This product is particularly suitable for injection and extrusion methods for the production of objects.</p>	<p>Bio-on</p>	<p>Italy</p>



<p>NAE VELOURS BLANC</p> <p>Velvety decoration paint for wall surfaces, made from a 92% bio-based vegetable alkyd resin in aqueous emulsion and from largely renewable and natural components.</p>	<p>UNIKALO</p>	<p>France</p>
<p>reSound™ NF</p> <p>reSound™ NF reinforced materials are based on an eco-conscious, natural fiber-filled technology. Developed for lightweighting in advanced applications in transportation, these thermoplastic materials contain a minimum of 30% bio-based content, up to 50%.</p>	<p>Polyone</p>	<p>France</p>
<p>Supersap Recyclamine System</p> <p>System with a bio-based resin (epoxy) that can be 100% recyclable (turning it into a thermoplastic).</p>	<p>Entropy Resins</p>	<p>Spain</p>
<p>Top Bio</p> <p>The bio-pesticide Top Bio is an emulsifiable concentrate containing azadirachtin, nimbin, citronellal, citronellol, geraniol, granting insecticide, insect repellent and fungicide effects for the control of pests.</p>	<p>Bio Phyto Collines</p>	<p>Benin</p>
<p>VARIAN®</p> <p>Between texture and structure, Varian® is a rigid impregnated fabric available in sheets or rolls ready to use, and simple to use as a real "textile sheet".</p>	<p>Culture iN</p>	<p>France</p>



Product profiles presentation for the winner and finalists



Biobased super-absorbent SAP-BIO-09 (VALAGRO CARBONE RENOUEVELABLE)



Agrobiobase Award

“As the superabsorbent market is a promising mass market for bio-based sector, the jury has retained this innovation, which is at the pilot scale.”



a. dry ; b. after absorption

Description:

Superabsorbent polymers (SAP) are polymers that can absorb and retain large quantities of liquids relative to their own mass, without dissolving. They are cross-linked polyacrylates obtained by free radical polymerization of acrylic acid in the presence of a cross-linking agent. Therefore, these polymers are totally issued from petrochemistry.

Valagro developed a 100% biobased SAP by polymerizing itaconic acid (a biobased monomer obtained by biotechnological processes) in the presence of a di-itaconate. This cross-linked polymer has high aqueous liquid absorption capacity (40-50 g of water absorbed per gram of SAP, 15-20g of urine per gram of SAP; ...) and can effectively replace crosslinked polyacrylic acid.

SAP APPLICATIONS :

- diapers
- absorbent paper
- cosmetics gelling agents,
- cooling textile fibres,
- artificial snow,
- sanitary napkins,
- hydrating gels burns,
- temporary protection against flooding,
- urinals disposable,
- gel lighter,
- nutrient solutions for soil or plants.

by



Product family:

Application products > Materials, equipment, accessories

Sectors/Markets:



Plant origin & Bio-based content:

Sugar fermentation
100%, Calculated according to ASTM D6866

Environmental gain:

No data

Geographical target markets

America, Asia, Europe

Manufacturing place

Poitiers (France)

Place of supply in plant biomass

Poitiers (France)

Available quantity

Capacity of 150 kg/y

Estimated price

2500 - 3000 €/t





BELOUKHA (JADE)

“Meeting the needs of less hazardous pesticides, the jury has selected this biocontrol product, on the market for less than one year.”



by



Description:

BELOUKHA® is the First Biocontrol crop protection product with grass control, desiccation and moss control effects (on hard surfaces) for Agriculture. It is a non-selective, strictly contact herbicide that acts quickly on the impacted area by desiccation of the affected aerial part.

Product family:

Application products > Treatment products

Sectors/Markets:



Plant origin & Bio-based content:

Rapeseed oil
100%

Environmental gain:

100% biosourced

Geographical target markets

America, Asia, Europe, Oceania

Manufacturing place

Currently in China, Project in France

Place of supply in plant biomass

Currently in China, Project in France

Physical data

Emulsifiable concentrate

Available quantity

Limited quantity over the next 2 years

Estimated price

130-290 €/ha depending on spraying techniques





Edulis Exudative® (Plant Advanced Technologies)

“Launched in 2013, this product has convinced the jury thanks to the innovative extraction technology used and its commitment to a limited environmental impact.”



Description:

Edulis Exudative® root extract is a concentrated active ingredient for dermo-cosmetic application. It offers an unmet yield of dermo-active 3,5DCQA content thanks to the Plant Milking® technology (patent WO 01/33942 A1). This environment friendly process allows the harvest of active compounds from root exudation of plants grown aeroponically. The product offers for the first time such purity and concentration in 3,5DCQA.

The phytochemical profile of Edulis Exudative® root extract is unique since 3,5DCQA is harvested from living roots. Its composition has shown stronger cosmetic bioactivity than conventional extracts.



The percentage of the extract takes into account the proportion of the extraction solution. The future product developments tend to replace the extracting solution by a plant-based solution.

Product family:

Intermediate products > Actives

Sectors/Markets:



by



Plant origin & Bio-based content:

Edulis plant
< 5%

Environmental gain:

- Plants used for the production of Edulis Exudative® root extract are not destroyed during the process thanks to the advantages offered by the Plant Milking® technology. Plants can hence be harvested up to 8 times during the spring, summer and fall season.
- The production of Edulis Exudative® root extract preserves agricultural land areas.
- Zero water wasted. The water used in the composition of the culture medium that feeds the plants is collected from the greenhouse rooftops. No drinkable water is pumped from the water supply network.
- Zero Pesticide. The production greenhouse is pesticide-free. Harmful insects are managed by biocontrol solutions only

Geographical target markets

Africa, America, Asia, Europe, Oceania

Manufacturing place

France (Laronxe, Meurthe-et-Moselle)

Place of supply in plant biomass

France (Laronxe, Meurthe-et-Moselle)

Physical data

Translucide viscous solution

Available quantity & Estimated price

Exclusive product ; undisclosed price



PLHT 201 (Natureplast)

“Thanks to mechanical and thermal properties superior to standard grades, the access to applications for which PLA is generally not used (automotive, consumer electronics) has convinced the jury to select this product, on the market for less than one year.”



Description:

PLHT 201 is a PLA grade with excellent mechanical properties, impact resistance, and thermal stability (above 100°C). It can be processed by injection molding and/or extrusion.

Product family:

Intermediate products > Compounds

Sectors/Markets:



by



Plant origin & Bio-based content:

Corn
91%, Calculated according to ASTM D6866

Environmental gain:

Use of PLA allows savings in fossile energies and greenhouse gases emissions

Geographical target markets

Africa, America, Asia, Europe, Oceania

Manufacturing place

France

Place of supply in plant biomass

Europe / Worldwide

Physical data

PLHT grades exhibit mechanical properties that can be compared to those of ABS-PC and HIPS. They are thermally stable above 100°C. The various components of these compounds are certified for food contact, and compostable.

Implementation

Injection molding and extrusion





4 - Partenaires du Prix de l'Agrobiobase 2013

Competitiveness cluster Industries & Agro-Ressources



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www.iar-pole.com

French Ministry of Agriculture, Agrifood and Forestry



The Ministry is responsible for implementing government policy in the following areas:

- agriculture,
- food,
- rural development,
- forest and wood.

These duties are performed within the framework of the Common Agricultural Policy (CAP). The Ministry prepares and implements food policy in conjunction with the Ministry of Economy, Finance and Foreign Trade and the Ministry of Social Affairs and Health. The Ministry also works with the Ministry of Education and Higher Education to train future workers of rural agricultural, forestry, food and environmental sectors.

In the framework of its missions, the Ministry has six major objectives:

- develop sustainable agriculture and the food processing industry,
- ensure a safe, diverse and sustainable food,
- enhance the value of products, regulate markets,
- support the production and forest management, protect biodiversity,
- guide training, research and development,
- coordinate the services and the conduct of the Ministry's policies.



Association Chimie du Végétal (ACDV)



The aim the association has set for itself is to create all the industrial, economical and political conditions conducive to the development of this new sector, within the framework of competitive, responsible and sustainable agriculture and chemistry.

As a representative of the main players in bio-based chemistry, the ACDV is a driving force underlining industrial stakes to national and European bodies : It presents to Europe's governing bodies the vision and the stance of industrial companies regarding the development of bio-based chemistry.

Reflected by the French Grenelle law, the commitment of the French chemistry industrial players to use 15 % of renewable raw materials in the French chemistry in 2017 is a strong driver for ACDV's every day actions.

<http://www.chimieduvegetal.com/en/index.asp>

Formule Verte



Formule Verte is the magazine that deals with green solutions offering an alternative to petroleum-derived raw materials in all of the formulation industries. All the formulation industries are concerned : paints, coating, lubricants, detergents, cosmetics, packaging, plastics...

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