



European Biostimulants Industry Consortium

Labelling case studies

10 April 2013

EBIC has applied its initial proposals for labelling made in October 2012 to a range of products in order to test the viability of the proposal. A few overarching points have emerged:

- In general, the proposed template seems to work well across the diverse range of biostimulant products.
- A **distinction** needs to be made **between** the template listing the **required information** on labels and the **layout** of the final labels. Manufacturers should be given as much freedom as possible (within limits) with regard to layout in order to allow them to align the layout with requirements for other markets (e.g. to allow the same label to be used in the UK and the USA) and to provide the scope for design to help the brand stand out visually from competitors.
- Information that appears on the **SDS and technical data sheets should not be required on labels** unless absolutely necessary.
- **Some information – notably about batches – may appear on the label or directly on the packaging.** However, in the latter case a reference can be inserted on the label if authorities feel it is necessary to include some sort of reference on the label when the information is on the package. We have included examples where the batch information is on the label and others where it is on the packaging, with a reference on the label.
- **With regard to the presence of nutrients, care should be taken to avoid duplication:** if the manufacturer claims a nutritional effect, then the requirements for nutrient content should correspond to the appropriate rules for fertilizers as the product is probably most accurately considered a mixture of a fertilizer and a biostimulant. In most cases, the quantities of nutrients in straight biostimulants formulations will be negligible for nutritional purposes at the rates applied. For this reason, we have NOT included the following provision in this simulation “N, P₂O₅, K₂O, MgO, CaO, S₀₃ if $\geq 1\%$ with + type and performance characteristics specified”, except in the case of amino acids.
- On the other hand, we have included a provision for **declaring the maximum possible content of micronutrients** to allow farmers to manage the sometimes small margin between nutrition and toxicity of these elements.

TABLE OF CONTENTS

Template used for providing label information in this document	2
Example 1 – Biostimulant composed of a micro-organism (Endomycorrhizal Fungi)	3
Example 2 – Biostimulant with a seaweed extract	4
Example 3 – Biostimulant packaged as an intermediate for a manufacturer to mix with a fertilizer	5
Example 4 -- EC Fertilizer (NPK) containing an EC plant biostimulant	6
Example 5 -- Complex plant biostimulant (containing several “active” components)	7
Example 6 – Basic substance (amino acid)	8
Example 6 bis -- Basic substance (amino acid) commercially designed label	10

TEMPLATE

Labelling requirements that would apply to all plant biostimulants		Labelling that is required if relevant for the product
An indication of EU registration	EC Plant Biostimulant no.	
Product name		
Registry (definition) claims		
		Detailed claims
Active constituents in descending order of abundance & minimum guaranteed content		
		Guaranteed maximum level of micronutrients (expressed as a % of the formulation) if above the legal threshold for declaration ¹ + type and performance characteristics
Indications of the dose rates and suitable conditions of use		
Storage and handling recommendations		
Mark of the manufacturer and the trade description of the product		
Responsible person (manufacturer, importer or distributor): name or trade name, address	Biostimulant Company Address	
		Mark of quality (purely voluntary)
Batch code	Batch code :	May appear on label or directly on package
Expiration/best by date	Quality guaranteed through:	May appear on label or directly on package
Net mass or volume for fluid biostimulants at time of manufacture measured and expressed as kg or L	Net Mass :	May appear on label or directly on package
	References to SDS, technical data sheet, entry in the product registry, barcode for traceability, etc.	Additional information as appropriate for the specific product or the commercial strategy of the producer

¹ Given the relatively small quantities of biostimulants applied to crops (compared to fertilizers), it is likely that any micronutrient that has not been purposely incorporated into a biostimulant formulation (or coformulated in a fertilizer + biostimulants product) will only be present in negligible levels for consideration of additional nutritional effects or management of nutrient-related toxicity.

Example 1—Micro-organism

Labelling requirements that would apply to all plant biostimulants			Labelling that is required if relevant for the product
An indication of EU registration	EC Plant Biostimulant no. XXXX		
Product name	MYCBIOSTIM		
Registry (definition) claims	<i>Tolerance to abiotic stress by increasing the root system</i>		
			Detailed claims
Active constituents in descending order of abundance and the minimum guaranteed content	<i>ENDOMYCORRHIZAL (AM) FUNGI</i>		
	Glomus Intraradices	700 spores/g ²	
	Glomus Mosseae	700 spores/g	
	n/a		Guaranteed maximum level of micronutrients (expressed as a % of the formulation) if above the legal threshold for declaration ³ + type and performance characteristics
Indications of the dose rates and suitable conditions of use	<u>Dose rates:</u> Greenhouse transplant production: 10 g/100 m ² Bare roots (strawberries, vine): 250g/1000 plants Landscaping : 12 g/100 m ²		
Storage and handling recommendations	<u>Storage and handling recommendations:</u> Store in a dry cool place, do not freeze or expose to temperatures above 35°C. Avoid severe temperature variation. Close the bag tightly after use. Shake well before using. Respect the best before date on the label.		
Mark of the manufacturer and the trade description of the product	AM FUNGI		
Responsible person (manufacturer, importer or distributor): name or trade name, address	Biostimulant Company Address		
	n/a		Mark of quality (purely voluntary)
Batch code	Batch code :	12345	May appear on label or directly on package
Expiration date	Quality guaranteed through:	31/12/2015	May appear on label or directly on package
Net mass or volume for fluid biostimulants at time of manufacture measured and expressed as kg or L	Net Mass :	0,5 kg	May appear on label or directly on package
	[Link to biostimulant registry]		Additional information as appropriate for the specific product or the commercial strategy of the producer

² This is based on how at least one EBIC member company current declares microbial content and does not apply EBIC's proposal for how to handle the issue of tolerances for products containing micro-organisms.

³ Given the relatively small quantities of biostimulants applied to crops (compared to fertilizers), it is likely that any micronutrient that has not been purposely incorporated into a biostimulant formulation (or coformulated in a fertilizer + biostimulants product) will only be present in negligible levels for consideration of additional nutritional effects or management of nutrient-related toxicity.

Example 2—Seaweed-based product

Labelling requirements that would apply to all plant biostimulants		Labelling that is required if relevant for the product
An indication of EU registration	EC Plant Biostimulant no.	
Product name	Algolam 0-0-1	
Registry claims	<i>Enhance tolerance to abiotic stress and crop quality by increasing root growth and marketable grade</i>	
Active constituents in descending order of abundance and the minimum guaranteed content	<u>Derived from Seaweed meal</u> Ascophyllum nodosum Laminarin Fucoidan	300g dry matter / l 10g / litre 10g / litre
	n/a	Guaranteed maximum level of micronutrients (expressed as a % of the formulation) if above the legal threshold for declaration ⁴ + type and performance characteristics
Indications of the dose rates and suitable conditions of use	<u>Dose rates:</u> Foliar application: 1L/Hectare Fertirrigation (strawberries, vine): 1/500L of water	
Storage and handling recommendations	<u>Storage and handling recommendations:</u> Store in a dry cool place, do not freeze or expose to temperatures above 35°C. Avoid severe temperature variation. Close the bag tightly after use. Shake well during the application. Respect the best before date on the bottle. Caution: Keep out of reach of children, [H&S symbols].	
Mark of the manufacturer & the trade description of the product	Seaweed produce	
Responsible person (manufacturer, importer or distributor): name or trade name, address, contact	Biostimulant Company Address, phone	
	Barcode for traceability	
Batch code	Batch code :	12345
Expiration date	Quality guaranteed through:	31/12/2015
Net mass or volume for fluid biostimulants at time of manufacture measured and expressed as kg or L	Net Content : Net Weight:	1L 1.1Kg
	More information regarding the product characteristics is available at [Link to biostimulant registry]	
	Additional information as appropriate for the specific product or the commercial strategy of the producer	

⁴ Given the relatively small quantities of biostimulants applied to crops (compared to fertilizers), it is likely that any micronutrient that has not been purposely incorporated into a biostimulant formulation (or coformulated in a fertilizer + biostimulants product) will only be present in negligible levels for consideration of additional nutritional effects or management of nutrient-related toxicity.

Example 3— Biostimulant packaged as an intermediate for a manufacturer to mix with a fertilizer

Labelling requirements that would apply to all plant biostimulants			Labelling that is required if relevant for the product
An indication of EU registration + registration number	EC Plant Biostimulant n°xxxx		
Product name	GROwave		
Active constituents in descending order of abundance & the minimum guaranteed content	<i>Ascophyllum nodosum</i> extract		
	n/a		Guaranteed maximum level of micronutrients (expressed as a % of the formulation) if above the legal threshold for declaration ⁵ + type and performance characteristics
Indications of the dose rates and suitable conditions of use	<i>Dose rates :</i> The advised maximal dose of this biostimulant is 30 kg/ha/year, with a recommended mixture ratio of at least 1% (w/w) with a solid fertilizer.		
Registry claims	<i>Improves nutrient uptake by increasing the root system</i>		
			Detailed claims
Storage and handling recommendations	<i>Storage and handling recommendations:</i> Store in a dry cool place, do not freeze or expose to temperatures above 35°C. Avoid severe temperature variation. Close the bag tightly after use. Respect the best before date on the label or package.		
Mark of the manufacturer and the trade description of the product	FERTILISEA		
Responsible person (manufacturer, importer or distributor): name or trade name, address	Biostimulant Company Address		
			Mark of quality (purely voluntary)
Batch code	Batch code :	12345	May appear on label or directly on package
Expiration date	Quality guaranteed through:	31/12/2015	May appear on label or directly on package
Net mass or volume for fluid biostimulants at time of manufacture measured and expressed as kg or L	Net Volume : Net weight	1000 L 1200 kg	May appear on label or directly on package
	See SDS and technical data sheet for additional product information.		Additional information as appropriate for the specific product or the commercial strategy of the producer

⁵ Given the relatively small quantities of biostimulants applied to crops (compared to fertilizers), it is likely that any micronutrient that has not been purposely incorporated into a biostimulant formulation (or coformulated in a fertilizer + biostimulants product) will only be present in negligible levels for consideration of additional nutritional effects or management of nutrient-related toxicity.

Example 4—EC Fertilizer (NPK) containing an EC plant biostimulant

Labelling requirements that would apply to all plant biostimulants		Labelling that is required if relevant for the product
Type designation of fertiliser of EC regulation + ' <i>containing a EC biostimulant</i> '	EC FERTILISER NPK containing a EC plant biostimulant	
Composition of the fertiliser as described in EC regulation (obligatory marks for each type of designation)	10% total nitrogen (N) with 6% ammoniacal nitrogen and 4% ureic nitrogen 6% water-soluble P ₂ O ₅ 10% water-soluble K ₂ O	N, P ₂ O ₅ , K ₂ O MgO, CaO if ≥ 2% SO ₃ if ≥ 5%
Dose rates at which the biostimulant is brought to the fertiliser	5% (w/w)	
An indication of EU registration + registration number	EC Plant Biostimulant n°xxxx	
Product name	GROwave	
Active constituents in descending order of abundance & the minimum guaranteed content	<i>Ascophyllum nodosum</i> extract	
	<i>[covered by Fertilizer labelling requirements...see above]</i>	Guaranteed maximum level of micronutrients (expressed as a % of the formulation) if above the legal threshold for declaration ⁶ + type and performance characteristics
Registry claims	<i>Improves nutrient uptake by increasing the root system</i>	Detailed claims
Indications of the dose rates and suitable conditions of use	<u><i>Dose rates of the mixed product:</i></u> Market gardening : 40 g/m ²	
Storage and handling recommendations	<u><i>Storage and handling recommendations:</i></u> Store in a dry cool place, do not freeze or expose to temperatures above 35°C. Avoid severe temperature variation. Close the bag tightly after use. Respect the best before date on the label or package.	
Mark of the manufacturer & the trade description of the product	FERTILISEA	
Responsible person (manufacturer, importer or distributor): name or trade name, address	Company Address	
		Mark of quality (purely voluntary)
Batch code	Batch code : 121105	May appear on label or directly on package
Expiration date	Quality guaranteed through: 31/12/2015	May appear on label or directly on package
Net mass or volume for fluid biostimulants at time of manufacture measured and expressed as kg or L	Net Mass : 600 kg	May appear on label or directly on package
	<i>[Any other information required to fulfill labelling requirements for an EC Fertilizer.]</i>	Additional information as appropriate for the specific product or the commercial strategy of the producer

⁶ Given the relatively small quantities of biostimulants applied to crops (compared to fertilizers), it is likely that any micronutrient that has not been purposely incorporated into a biostimulant formulation (or coformulated in a fertilizer + biostimulants product) will only be present in negligible levels for consideration of additional nutritional effects or management of nutrient-related toxicity.

Example 5—Complex plant biostimulant (containing several “active” components)

Labelling requirements that would apply to all plant biostimulants			Labelling that is required if relevant for the product
An indication of EU registration	EC Plant Biostimulant no. XXXX		
Product name	‘COMPLEX PRODUCT’		
Registry claims	<i>Tolerance to abiotic stress</i>		
	‘COMPLEX PRODUCT’ enables the plant to overcome stress situations of freezing, lack of oxygen and transplanting		Detailed claims
Active constituents in descending order of abundance and the minimum guaranteed content	Vinasse (25-30%, concentration 2 gm/l, including betaines); Seaweed extract (<i>Ascophyllum nodosum</i> , >10%, conc. 3 gm/l, including mannitol); amino acids, Vitamin C		
	n/a		Guaranteed maximum level of micronutrients (expressed as a % of the formulation) if above the legal threshold for declaration ⁷ + type and performance characteristics
Indications of the dose rates and suitable conditions of use	<p>TIMING AND RATE OF APPLICATION (foliar applications at 10-15 day intervals throughout the crop cycle). Fruit, vegetables, processing crops, and ornamentals in open field: 2-3 L/ha; fruit, vegetables, ornamentals under protection: 150-250 ml/100L.</p> <p>Compatible with most herbicides. Jar test is recommended.</p> <p>CAUTION: Do not mix with copper on crops sensitive to this element. Do not mix with white oils.</p>		
Storage and handling recommendations	<p><u>Storage and handling recommendations:</u> Mix thoroughly before use. Product is stable if stored between 0°C e 40°C. In case of fire, use plenty of water.</p>		
Mark of the manufacturer and the trade description of the product			
Responsible person (manufacturer, importer or distributor): name or trade name, address	Biostimulant Company Address		
			Mark of quality (purely voluntary)
Batch code	Batch code :	See production date and batch code on package	May appear on label or directly on package
Expiration date	Quality guaranteed through:	See expiry date on package	May appear on label or directly on package
Net mass or volume for fluid biostimulants at time of manufacture measured and expressed as kg or L	Net Volume (Net Mass) :	5 L (6 kg)	May appear on label or directly on package
	See SDS and technical data sheet for additional product information.		Additional information as appropriate for the specific product or the commercial strategy of the producer

⁷ Given the relatively small quantities of biostimulants applied to crops (compared to fertilizers), it is likely that any micronutrient that has not been purposely incorporated into a biostimulant formulation (or coformulated in a fertilizer + biostimulants product) will only be present in negligible levels for consideration of additional nutritional effects or management of nutrient-related toxicity.

Example 6— Basic substance (amino acid)

Labelling requirements that would apply to all plant biostimulants			Labelling that is required if relevant for the product
An indication of EU registration	EC Plant Biostimulant no. XXXX		
Product name	AMINO ANIMA 7.5-0-0		
Registry claims	<i>Nutrient uptake, nutrient efficiency, tolerance to abiotic stress and crop quality</i>		
	<i>Contributes to a greater mobility in the soil and better absorption of mineral elements (N, P, K and microelements). Activator of vegetative growth. Diminishes problems of fall of the fruits, lacks of colour, chlorosis, hollowed fruits, and increases the crop quality.</i>		Detailed claims
Active constituents in descending order of abundance and the minimum guaranteed content	Total amino acids Free amino acids	30.0 %w/w; 36.0 % w/v 20.0 %w/w; 24.0 % w/v	
	Total nitrogen (N) Organic nitrogen (N)	7.5 %w/w; 9.0% w/v 7.5 %w/w; 9.0% w/v	N, P ₂ O ₅ , K ₂ O, MgO, CaO, SO ₃ if ≥ 1% + type and performance characteristics
	n/a		Guaranteed maximum level of micronutrients (expressed as a % of the formulation) if above the legal threshold for declaration + type and performance characteristics ⁸
Indications of the dose rates and suitable conditions of use	<p><u>Dose rates:</u> Can be applied to all kind of crops. Foliar application: 100-200 cc/hl. Drip irrigation application: 1-2 l/ha and week. Fertigation: apply 2-3 l/ha twice in period of maximum growth. Application is recommended at the following moments: floral bud appearance, petal fall, setting, before harvesting and for post-harvest recovery.</p>		
Storage and handling recommendations	<p><u>Storage and handling recommendations:</u> S2. Keep out of reach of children. S13. Keep away from food, drink and animal foodstuffs. Do not eat or drink the product. Wash your hands after handling the product. Do not stack pallets. Should be stored between 5°C and 35°C. This product is not subject to any toxicological regulation neither for its manipulation nor for its application. It is recommended to use this product under technical agronomical advice. To be used in case of recognised necessity. Do not surpass the recommended doses. The Company guarantees the richness and composition of the product, and does not assume responsibility for any damage caused by either inadequate use or total or partial disregard for the instructions in the label.</p>		
Mark of the manufacturer and the trade description of the product	XYZ		
Responsible person (manufacturer, importer or distributor): name or trade name, address	Biostimulant Company Address		

(continued on next page)

⁸ Given the relatively small quantities of biostimulants applied to crops (compared to fertilizers), it is likely that any micronutrient that has not been purposely incorporated into a biostimulant formulation (or coformulated in a fertilizer + biostimulants product) will only be present in negligible levels for consideration of additional nutritional effects or management of nutrient-related toxicity.

Example 6— Basic substance (amino acid) -- *continued*

			Mark of quality (purely voluntary)
Batch code	Batch code :	12345	May appear on label or directly on package
Expiration date	Quality guaranteed through:	31/12/2015	May appear on label or directly on package
Net mass or volume for fluid biostimulants at time of manufacture measured and expressed as kg or L	Net Mass:	1 L	May appear on label or directly on package
	See SDS and technical data sheet for additional product information.		Additional information as appropriate for the specific product or the commercial strategy of the producer

Example 6 bis — Basic substance (amino acid) with commercial design

amino anima

7,5-0-0

EC PLANT BIOSTIMULANT

Nutrient uptake, nutrient efficiency, tolerance to abiotic stress and crop quality

DOSE RATES

AMINO ANIMA can be applied in all kind of crops.
 Foliar application: 100-200 cc/ha.
 Drip irrigation application: 1-2 l/ha and week.
 Fertirrigation: apply 2-3 l/ha twice in period of maximum growth.
 Its application is recommended in following different moments: floral bud appearance, petal fall, setting, before harvesting and for post-harvest recovery.

STORAGE AND HANDLING RECOMMENDATIONS
 S2. Keep out of reach of children.
 S13. Keep away from food, drink and animal foodstuffs.
 Do not drink or eat the product. Wash your hands after application of the product.
 Do not pile up palets. The temperature range where this product should be stored is from 5°C to 35°C. This product is not obliged to any toxicological regulation neither for its manipulation nor for its application.
 It is recommended to be used under technical agronomical advice.
 To be used in case of recognised necessity.
 Do not surpass the recommended doses.
 The Company guarantees the richness and composition of the product, and does not assume responsibility for the damages caused either out of inadequate use or because of total or partial disregard for the instructions in the label.

Produced by:
Biostimulant Company
 Address

WARRANTED RICHNESS

	%w/w	%w/v
Total amino acids	30,0	36,0
Free amino acids	20,0	24,0
Total nitrogen (N)	7,5	9,0
Organic nitrogen (N)	7,5	9,0

DETAILED CLAIMS

AMINO ANIMA contributes to a greater mobility in the soil and better absorption of mineral elements (N, P, K and microelements).

AMINO ANIMA is an activator of vegetative growth.

AMINO ANIMA diminishes problems of fall of the fruits, lacks of colour, chlorosis, hollowed fruits, and increases the crop quality.

Batch code: 12345
 Net mass: 1 L
 Expiration date: 31/12/2015