

# codex alimentarius commission



FOOD AND AGRICULTURE  
ORGANIZATION  
OF THE UNITED NATIONS

WORLD  
HEALTH  
ORGANIZATION



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**AGENDA ITEM NO. 8(B)**

**CX/FL 03/10-ADI**

## **JOINT FAO/WHO FOOD STANDARDS PROGRAMME**

**CODEX COMMITTEE ON FOOD LABELLING  
THIRTY-FIRST SESSION  
OTTAWA, CANADA, 28 APRIL - 2 MAY 2003**

**GUIDELINES FOR THE PRODUCTION, PROCESSING, LABELLING  
AND MARKETING OF ORGANICALLY PRODUCED FOODS:  
PROPOSED DRAFT REVISED SECTION:  
ANNEX 2 – PERMITTED SUBSTANCES  
(ALINORM 03/22, APPENDIX VIII & CL 2002/15-FL & CL 2002/50-I**

**GOVERNMENT COMMENTS AT STEP 3**

**COMMENTS FROM:**

**SWITZERLAND**

## Switzerland

### PROPOSED DRAFT AMENDMENTS TO ANNEX 2 – PERMITTED SUBSTANCES - EVALUATION AGAINST CRITERIA

**Table 1: Substances for use in soil fertilizing and conditioning**

**Proposed substance: By-products of food and textile industries**

CRITERIA		EVALUATION AGAINST CRITERIA include: detailed description of use and consequences if use of a substance is not permitted	SCORING	PROPOSED BY
Section 5.1 General Principles	Consistent with the principles of organic production	If they aren't treated with synthetic additives, they may be consistent with the principles of organic agriculture.		
	Substance is necessary / essential for its intended use	Yes		
	Manufacture, use and disposal does not result in, or contribute to, harmful effects on the environment	No, when they aren't treated with synthetic additives		
	Lowest negative impact on human or animal health and quality of life	Yes		
	Approved alternatives not available	-		
Section 5.1 (b) Used for fertilization, soil conditioning	Essential for obtaining or maintaining fertility of the soil or fulfill specific nutrition requirements of crops, soil-conditioning and rotation purposes	Yes		
	Ingredients are of plant, animal, microbial, or mineral origin; may undergo physical, enzymatic or microbial processes	Yes, ingredients are of plant or animal origin.		
	Use does not have harmful impact on soil organisms or physical characteristic of soil	No		
	Use restricted to specific conditions, regions or commodities	No		

**Proposed substance: Sawdust, bark and wood waste**

CRITERIA		EVALUATION AGAINST CRITERIA include: detailed description of use and consequences if use of a substance is not permitted	SCORING	PROPOSED BY
Section 5.1 General Principles	Consistent with the principles of organic production	Yes, product can be found in nature		
	Substance is necessary / essential for its intended use	Yes, see 5.1 (b)		
	Manufacture, use and disposal does not result in, or contribute to, harmful effects on the environment	Harmful effects are not known from the manufacture, use or disposal of sawdust, bark and wood waste.		
	Lowest negative impact on human or animal health and quality of life	No negative impact is known on human health, livestock or wildlife of wood not treated chemically		
	Approved alternatives not available	-		
Section 5.1 (b) Used for fertilization, soil conditioning	Essential for obtaining or maintaining fertility of the soil or fulfill specific nutrition requirements of crops, soil-conditioning and rotation purposes	Sawdust, bark and wood waste can be used as structure material in compost and allow a good fermentation by improving the air supply.		
	Ingredients are of plant, animal, microbial, or mineral origin; may undergo physical, enzymatic or microbial processes	Ingredients are of plant origin		
	Use does not have harmful impact on soil organisms or physical characteristic of soil	No negative impacts are known of wood not treated chemically		
	Use restricted to specific conditions, regions or commodities	No		

**Proposed substance: Gypsum (calcium sulphate)**

CRITERIA		EVALUATION AGAINST CRITERIA include: detailed description of use and consequences if use of a substance is not permitted	SCORING	PROPOSED BY
Section 5.1 General Principles	Consistent with the principles of organic production	Yes, product can be found in nature.		
	Substance is necessary / essential for its intended use	Yes		
	Manufacture, use and disposal does not result in, or contribute to, harmful effects on the environment	No		
	Lowest negative impact on human or animal health and quality of life	Yes		
	Approved alternatives not available	-		
Section 5.1 (b) Used for fertilization, soil conditioning	Essential for obtaining or maintaining fertility of the soil or fulfill specific nutrition requirements of crops, soil-conditioning and rotation purposes	Yes		
	Ingredients are of plant, animal, microbial, or mineral origin; may undergo physical, enzymatic or microbial processes	Yes, ingredients are of mineral origin.		
	Use does not have harmful impact on soil organisms or physical characteristic of soil	No		
	Use restricted to specific conditions, regions or commodities	Gypsum has to be of natural origin		

**Proposed substance: Wood charcoal**

CRITERIA		EVALUATION AGAINST CRITERIA include: detailed description of use and consequences if use of a substance is not permitted	SCORING	PROPOSED BY
Section 5.1 General Principles	Consistent with the principles of organic production	Yes, but only charcoal from wood not treated chemically		
	Substance is necessary / essential for its intended use	Yes		
	Manufacture, use and disposal does not result in, or contribute to, harmful effects on the environment	No, no harmful effects on the environment are known		
	Lowest negative impact on human or animal health and quality of life	No negative impact is known		
	Approved alternatives not available	-		
Section 5.1 (b) Used for fertilization, soil conditioning	Essential for obtaining or maintaining fertility of the soil or fulfill specific nutrition requirements of crops, soil-conditioning and rotation purposes	Yes.		
	Ingredients are of plant, animal, microbial, or mineral origin; may undergo physical, enzymatic or microbial processes	Ingredients of plant origin		
	Use does not have harmful impact on soil organisms or physical characteristic of soil	No		
	Use restricted to specific conditions, regions or commodities	No		

**Proposed substance: Calcium chloride solution**

CRITERIA		EVALUATION AGAINST CRITERIA include: detailed description of use and consequences if use of a substance is not permitted	SCORING	PROPOSED BY
Section 5.1 General Principles	Consistent with the principles of organic production	Yes		
	Substance is necessary / essential for its intended use	Yes, but just leaf treatment in case of proven calcium deficiency		
	Manufacture, use and disposal does not result in, or contribute to, harmful effects on the environment	No		
	Lowest negative impact on human or animal health and quality of life	Yes		
	Approved alternatives not available	-		
Section 5.1 (b) Used for fertilization, soil conditioning	Essential for obtaining or maintaining fertility of the soil or fulfill specific nutrition requirements of crops, soil-conditioning and rotation purposes	Yes		
	Ingredients are of plant, animal, microbial, or mineral origin; may undergo physical, enzymatic or microbial processes	Yes		
	Use does not have harmful impact on soil organisms or physical characteristic of soil	No		
	Use restricted to specific conditions, regions or commodities	Yes, just in case of proven need		

**Proposed substance: Plant extracts and preparation such as infusions and tea**

CRITERIA		EVALUATION AGAINST CRITERIA include: detailed description of use and consequences if use of a substance is not permitted	SCORING	PROPOSED BY
Section 5.1 General Principles	Consistent with the principles of organic production	Yes, substances can be found in nature.		
	Substance is necessary / essential for its intended use	Yes, they stimulate plant natural defenses and have a favorable effect on the development of soil's life.		
	Manufacture, use and disposal does not result in, or contribute to, harmful effects on the environment	No harmful effects are known.		
	Lowest negative impact on human or animal health and quality of life	No information available which demonstrate a negative impact on human or animal health and quality of life.		
	Approved alternatives not available	-		
Section 5.1 (b) Used for fertilization, soil conditioning	Essential for obtaining or maintaining fertility of the soil or fulfill specific nutrition requirements of crops, soil-conditioning and rotation purposes	Yes, see 5.1		
	Ingredients are of plant, animal, microbial, or mineral origin; may undergo physical, enzymatic or microbial processes	Ingredients are of natural origin and may undergo different processes after application		
	Use does not have harmful impact on soil organisms or physical characteristic of soil	No harmful impact known		
	Use restricted to specific conditions, regions or commodities	No		

**Proposed substance: Biodynamic preparations**

CRITERIA		EVALUATION AGAINST CRITERIA include: detailed description of use and consequences if use of a substance is not permitted	SCORING	PROPOSED BY
Section 5.1 General Principles	Consistent with the principles of organic production	Yes		
	Substance is necessary / essential for its intended use	Yes, see 5.1 (b)		
	Manufacture, use and disposal does not result in, or contribute to, harmful effects on the environment	No harmful effects are known		
	Lowest negative impact on human or animal health and quality of life	No negative impact is known		
	Approved alternatives not available	-		
Section 5.1 (b) Used for fertilization, soil conditioning	Essential for obtaining or maintaining fertility of the soil or fulfill specific nutrition requirements of crops, soil-conditioning and rotation purposes	Beneficial for many soil organisms, stimulate plant natural defenses etc.		
	Ingredients are of plant, animal, microbial, or mineral origin; may undergo physical, enzymatic or microbial processes	Ingredients are of natural origin and may undergo physical, enzymatic or microbial processes		
	Use does not have harmful impact on soil organisms or physical characteristic of soil	No harmful impacts are known		
	Use restricted to specific conditions, regions or commodities	No		

**Comments:** Listing is not absolutely necessary here. These substances could also be covered under the existing **Annex 1, point 5 d**. By being placed in this section, the biodynamic preparations are acknowledged as an integral part of the farm management practice which is even more appropriate.



**Proposed substance: Substrata**

CRITERIA		EVALUATION AGAINST CRITERIA include: detailed description of use and consequences if use of a substance is not permitted	SCORING	PROPOSED BY
Section 5.1 General Principles	Consistent with the principles of organic production	Yes, the different components of the substrata can be found in nature.		
	Substance is necessary / essential for its intended use	Yes, substrata forms the basis of life for the plants		
	Manufacture, use and disposal does not result in, or contribute to, harmful effects on the environment	No harmful effects are known		
	Lowest negative impact on human or animal health and quality of life	No negative impact is known		
	Approved alternatives not available	No		
Section 5.1 (b) Used for fertilization, soil conditioning	Essential for obtaining or maintaining fertility of the soil or fulfill specific nutrition requirements of crops, soil-conditioning and rotation purposes	Yes		
	Ingredients are of plant, animal, microbial, or mineral origin; may undergo physical, enzymatic or microbial processes	Ingredients are of plant origin		
	Use does not have harmful impact on soil organisms or physical characteristic of soil	No harmful impact known		
	Use restricted to specific conditions, regions or commodities	Peat percentage has to be of max. 70% vol.; use of peat should be avoided as far as possible.		

**Table 2: Substances for plant pest and disease control**

**Proposed substance:** Seaweed, seaweed meal, seaweed extracts, sea salts and salty water

CRITERIA		EVALUATION AGAINST CRITERIA include: detailed description of use and consequences if use of a substance is not permitted	SCORING	PROPOSED BY
Section 5.1 General Principles	Consistent with the principles of organic production	Yes, substances can be found in nature.		
	Substance is necessary / essential for its intended use	Yes		
	Manufacture, use and disposal does not result in, or contribute to, harmful effects on the environment	No, no harmful effects are known		
	Lowest negative impact on human or animal health and quality of life	The substances have to be free of any chemical treatment and the conditions for use must be specified.		
	Approved alternatives not available	-		
Section 5.1 (b) Used for plant disease or pest and weed control	essential for the control of a harmful organism or particular disease for which other biological, physical or plant breeding alternatives and /or effective management practices are not available	Seaweed etc. helps ensure that a suppressive soil may be built up around the plants roots. It also strengthens the natural resistance mechanisms of the plants themselves, making them better able to fight off foliar diseases, sap-sucking insect attacks and to combat the negative effects of adverse weather, thereby leading to improved plant health and productivity.		
	[use should take into account potential harmful impact on the environment, ecology and health of consumer, livestock and bees]	-		
	undergo physical, enzymatic or microbial processes	Yes		
	Products which are chemically synthesized, used in exceptional circumstances in traps and dispensers	No		
	use restricted to specific conditions, regions or commodities	No		

**Comments:** Could also be placed under Table 1.

**Proposed substance: Lecithin**

CRITERIA		EVALUATION AGAINST CRITERIA include: detailed description of use and consequences if use of a substance is not permitted	SCORING	PROPOSED BY
Section 5.1 General Principles	Consistent with the principles of organic production	Yes, can be found in nature		
	Substance is necessary / essential for its intended use	Yes, but substance must be free of and not be derived from genetically modified organisms.		
	Manufacture, use and disposal does not result in, or contribute to, harmful effects on the environment	No		
	Lowest negative impact on human or animal health and quality of life	No negative impacts are known		
	Approved alternatives not available	-		
Section 5.1 (b) Used for plant disease or pest and weed control	essential for the control of a harmful organism or particular disease for which other biological, physical or plant breeding alternatives and /or effective management practices are not available	Yes, lecithin has a function as a fungicide		
	[use should take into account potential harmful impact on the environment, ecology and health of consumer, livestock and bees]	-		
	undergo physical, enzymatic or microbial processes	Yes		
	Products which are chemically synthesized, used in exceptional circumstances in traps and dispensers	No		
	use restricted to specific conditions, regions or commodities	No		

**Proposed substance: Repellents of plants and animal origin**

CRITERIA		EVALUATION AGAINST CRITERIA include: detailed description of use and consequences if use of a substance is not permitted	SCORING	PROPOSED BY
Section 5.1 General Principles	Consistent with the principles of organic production	Yes, can be found in nature		
	Substance is necessary / essential for its intended use	Yes		
	Manufacture, use and disposal does not result in, or contribute to, harmful effects on the environment	No		
	Lowest negative impact on human or animal health and quality of life	No negative impact is known		
	Approved alternatives not available	-		
Section 5.1 (b) Used for plant disease or pest and weed control	essential for the control of a harmful organism or particular disease for which other biological, physical or plant breeding alternatives and /or effective management practices are not available	Yes		
	[use should take into account potential harmful impact on the environment, ecology and health of consumer, livestock and bees]	-		
	undergo physical, enzymatic or microbial processes	Yes		
	Products which are chemically synthesized, used in exceptional circumstances in traps and dispensers	Yes		
	use restricted to specific conditions, regions or commodities	No		

**Proposed substance:** Natural enemies such as e.g., parasitical hymenoptera, predatory mites, rediids, gall midges, ladybirds, nematoda

CRITERIA		EVALUATION AGAINST CRITERIA include: detailed description of use and consequences if use of a substance is not permitted	SCORING	PROPOSED BY
Section 5.1 General Principles	Consistent with the principles of organic production	Yes, all insects can be found in nature		
	Substance is necessary / essential for its intended use	Yes		
	Manufacture, use and disposal does not result in, or contribute to, harmful effects on the environment	No		
	Lowest negative impact on human or animal health and quality of life	Yes		
	Approved alternatives not available	-		
Section 5.1 (b) Used for plant disease or pest and weed control	essential for the control of a harmful organism or particular disease for which other biological, physical or plant breeding alternatives and /or effective management practices are not available	Yes		
	[use should take into account potential harmful impact on the environment, ecology and health of consumer, livestock and bees]	-		
	undergo physical, enzymatic or microbial processes	-		
	Products which are chemically synthesized, used in exceptional circumstances in traps and dispensers	No		
	use restricted to specific conditions, regions or commodities	No		

**Proposed substance: Plant waxes and oils**

CRITERIA		EVALUATION AGAINST CRITERIA include: detailed description of use and consequences if use of a substance is not permitted	SCORING	PROPOSED BY
Section 5.1 General Principles	Consistent with the principles of organic production	Yes, substances can be found in nature		
	Substance is necessary / essential for its intended use	Yes, important pruning sealants for fruit-, wine- and ornamental plant-growing		
	Manufacture, use and disposal does not result in, or contribute to, harmful effects on the environment	No		
	Lowest negative impact on human or animal health and quality of life	Yes		
	Approved alternatives not available	Alternatives available		
Section 5.1 (b) Used for plant disease or pest and weed control	essential for the control of a harmful organism or particular disease for which other biological, physical or plant breeding alternatives and /or effective management practices are not available	Yes		
	[use should take into account potential harmful impact on the environment, ecology and health of consumer, livestock and bees]	-		
	undergo physical, enzymatic or microbial processes	Yes, physical processes		
	Products which are chemically synthesized, used in exceptional circumstances in traps and dispensers	No		
	use restricted to specific conditions, regions or commodities	No		

**Proposed substance: Beeswax**

CRITERIA		EVALUATION AGAINST CRITERIA include: detailed description of use and consequences if use of a substance is not permitted	SCORING	PROPOSED BY
Section 5.1 General Principles	Consistent with the principles of organic production	Yes, product can be found in nature		
	Substance is necessary / essential for its intended use	Yes, important pruning sealants for fruit-, wine- and ornamental plant-growing		
	Manufacture, use and disposal does not result in, or contribute to, harmful effects on the environment	No		
	Lowest negative impact on human or animal health and quality of life	Yes		
	Approved alternatives not available	Alternatives available		
Section 5.1 (b) Used for plant disease or pest and weed control	essential for the control of a harmful organism or particular disease for which other biological, physical or plant breeding alternatives and /or effective management practices are not available	Yes		
	[use should take into account potential harmful impact on the environment, ecology and health of consumer, livestock and bees]	-		
	undergo physical, enzymatic or microbial processes	Yes, physical processes		
	Products which are chemically synthesized, used in exceptional circumstances in traps and dispensers	No		
	use restricted to specific conditions, regions or commodities	No		

**Proposed substance: Mineral oils**

CRITERIA		EVALUATION AGAINST CRITERIA include: detailed description of use and consequences if use of a substance is not permitted	SCORING	PROPOSED BY
Section 5.1 General Principles	Consistent with the principles of organic production	Yes, substance can be found in nature.		
	Substance is necessary / essential for its intended use	Yes		
	Manufacture, use and disposal does not result in, or contribute to, harmful effects on the environment	Yes, mineral oil is just with difficulty degradable		
	Lowest negative impact on human or animal health and quality of life	No		
	Approved alternatives not available	No		
Section 5.1 (b) Used for plant disease or pest and weed control	essential for the control of a harmful organism or particular disease for which other biological, physical or plant breeding alternatives and /or effective management practices are not available	Yes		
	[use should take into account potential harmful impact on the environment, ecology and health of consumer, livestock and bees]	Yes		
	undergo physical, enzymatic or microbial processes	Yes		
	Products which are chemically synthesized, used in exceptional circumstances in traps and dispensers	No		
	use restricted to specific conditions, regions or commodities	Yes, use restricted only to exceptional cases such as e.g. an attack of San-José louse		



**Proposed substance: Rodenticides**

CRITERIA		EVALUATION AGAINST CRITERIA include: detailed description of use and consequences if use of a substance is not permitted	SCORING	PROPOSED BY
Section 5.1 General Principles	Consistent with the principles of organic production	Only in stables and housing systems.		
	Substance is necessary / essential for its intended use	Yes, rotenticides are important products for controlling pests or diseases in stables and housing systems.		
	Manufacture, use and disposal does not result in, or contribute to, harmful effects on the environment	-		
	Lowest negative impact on human or animal health and quality of life	Yes		
	Approved alternatives not available	No		
Section 5.1 (b) Used for plant disease or pest and weed control	essential for the control of a harmful organism or particular disease for which other biological, physical or plant breeding alternatives and /or effective management practices are not available	Yes		
	[use should take into account potential harmful impact on the environment, ecology and health of consumer, livestock and bees]	-		
	undergo physical, enzymatic or microbial processes	Various products concerned		
	Products which are chemically synthesized, used in exceptional circumstances in traps and dispensers	Used only in limited areas (stables and housing systems)		
	use restricted to specific conditions, regions or commodities	Yes		

**Proposed substance: Mechanical control devices such as e.g., crop protection nets, spiral barriers, glue-coated plastic traps, sticky bands**

CRITERIA		EVALUATION AGAINST CRITERIA include: detailed description of use and consequences if use of a substance is not permitted	SCORING	PROPOSED BY
Section 5.1 General Principles	Consistent with the principles of organic production	Yes, they can be classified under the biological and biotechnological methods		
	Substance is necessary / essential for its intended use	Yes		
	Manufacture, use and disposal does not result in, or contribute to, harmful effects on the environment	No		
	Lowest negative impact on human or animal health and quality of life	Yes		
	Approved alternatives not available	No		
Section 5.1 (b) Used for plant disease or pest and weed control	essential for the control of a harmful organism or particular disease for which other biological, physical or plant breeding alternatives and /or effective management practices are not available	Yes		
	[use should take into account potential harmful impact on the environment, ecology and health of consumer, livestock and bees]	-		
	undergo physical, enzymatic or microbial processes	No		
	Products which are chemically synthesized, used in exceptional circumstances in traps and dispenser	No		
	use restricted to specific conditions, regions or commodities	No		

**Table 3: Ingredients of non agricultural origin referred to in section 3 of these guidelines**

**Food additives, including carriers**

**Proposed substance: Calcium citrate (INS 333)**

CRITERIA		EVALUATION AGAINST CRITERIA include: detailed description of use and consequences if use of a substance is not permitted.	SCORING	PROPOSED BY
Section 5.1 General Principles	consistent with the principles of organic production	Yes, is like Citric acid of natural origin and can be found in citrus fruits		
	substance is necessary/essential for its intended use	Yes		
	manufacture, use and disposal does not result in, or contribute to, harmful effects on the environment	No negative effects are reported.		
	lowest negative impact on human or animal health and quality of life	ADI not limited by JECFA		
	approved alternatives not available	None available.		
Section 5.1 (c) Used as additives or processing aids in the production/preservation of food	[substance used only where not possible to preserve (additive) or produce (processing aid) in the absence of other available technology that satisfies these Guidelines]	Used for example in confectionary.		
	undergo mechanical/physical, biological/enzymatic or microbial processes	Yes (produced like citric acid). It is produced out of starch by micro organisms (traditional method)		
	undergo chemical synthesis if alternative substances/technologies not available	No		
	use maintains authenticity of the product	Yes, complexing- or acidification agent.		
	[does not detract from the overall quality]	No information		

**Proposed substance: Tartaric acid (INS 334)**

CRITERIA		EVALUATION AGAINST CRITERIA include: detailed description of use and consequences if use of a substance is not permitted.	SCORING	PROPOSED BY
Section 5.1 General Principles	consistent with the principles of organic production	Yes. Substance is present in many fruits and plants.		
	substance is necessary/essential for its intended use	Yes		
	manufacture, use and disposal does not result in, or contribute to, harmful effects on the environment	No negative effects are reported.		
	lowest negative impact on human or animal health and quality of life	ADI 0-30 mg/kg bodyweight according to JECFA		
	approved alternatives not available	None available.		
Section 5.1 (c) Used as additives or processing aids in the production/preservation of food	[substance used only where not possible to preserve (additive) or produce (processing aid) in the absence of other available technology that satisfies these Guidelines]	Used in confectionary, lemonades, desserts, conserved fruits and vegetables etc.		
	undergo mechanical/physical, biological/enzymatic or microbial processes	No		
	undergo chemical synthesis if alternative substances/technologies not available	Produced out of tartar, a by-product of wine production		
	use maintains authenticity of the product	Yes. Used as acidification-, acid regulation- and complexing agent		
	[does not detract from the overall quality]	No information		

**Proposed substance: Silicon dioxide (INS 551)**

CRITERIA		EVALUATION AGAINST CRITERIA include: detailed description of use and consequences if use of a substance is not permitted.	SCORING	PROPOSED BY
Section 5.1 General Principles	consistent with the principles of organic production	Yes. Substance is present in silica sand		
	substance is necessary/essential for its intended use	Yes, as anti-caking agent for herbs and spices		
	manufacture, use and disposal does not result in, or contribute to, harmful effects on the environment	No negative effects are reported.		
	lowest negative impact on human or animal health and quality of life	Not harmful. ADI not specified by JECFA. Organism doesn't absorb silicon dioxide		
	approved alternatives not available	None available		
Section 5.1 (c) Used as additives or processing aids in the production/preservation of food	[substance used only where not possible to preserve (additive) or produce (processing aid) in the absence of other available technology that satisfies these Guidelines]	anti-caking agent for herbs and spices		
	undergo mechanical/physical, biological/enzymatic or microbial processes	No		
	undergo chemical synthesis if alternative substances/technologies not available	Yes, produced out of silica sand.		
	use maintains authenticity of the product	Yes,		
	[does not detract from the overall quality]	No information is available.		

**For livestock and bee products**

**Proposed substance: Sodium nitrite (INS 250)**

CRITERIA		EVALUATION AGAINST CRITERIA include: detailed description of use and consequences if use of a substance is not permitted.	SCORING	PROPOSED BY
Section 5.1 General Principles	consistent with the principles of organic production	Yes		
	substance is necessary/essential for its intended use	Yes		
	manufacture, use and disposal does not result in, or contribute to, harmful effects on the environment	No negative effects (in the amount normally used as Food Additive).		
	lowest negative impact on human or animal health and quality of life	ADI 0-0.06 mg/kg bodyweight (specified by JECFA)  Nitrite is a critical substance concerning health. In certain circumstances (high temperature [e.g. barbecue] or adequate acidity ambience [stomach]) nitrite can lead to the formation of nitrosamines which are carcinogenic. But Nitrite is necessary to protect some meat products from <i>Clostridium botulinum</i> which has a lethal impact. It is estimated that 0.1 to 1 microgram of <i>Cl. botulinum</i> toxin A is deadly for humans. If this happens, it will be a really bad publicity for organic products.		
	approved alternatives not available	Until now no real existing alternative. Some intensive research should be done as soon as possible. In terms of finding a compromise a transition period can be discussed within this period the use of Nitrate/Nitrites should be allowed.		
Section 5.1 (c) Used as additives or processing aids in the production/preservation of food	[substance used only where not possible to preserve (additive) or produce (processing aid) in the absence of other available technology that satisfies these Guidelines]	Nitrate/Nitrite is necessary to protect some meat products from <i>Cl. botulinum</i> .		
	undergo mechanical/physical, biological/enzymatic or microbial processes	Normally produced by a chemical conversion (see below) but Nitrite results also of microbiological conversion of nitrate.		
	undergo chemical synthesis if alternative substances/technologies not available	Produced out of Sodium nitrate (E 251). The conversion from nitrate into nitrite and oxygen occurs under impact of heat (380°C)		
	use maintains authenticity of the product	Maintains the red colour of meat products		
	[does not detract from the overall quality]	Depends on the point of view: Consideration of <i>Cl. botulinum</i> risk versus nitrosamines.		

**Proposed substance: Sodium nitrate (INS 251)**

CRITERIA		EVALUATION AGAINST CRITERIA include: detailed description of use and consequences if use of a substance is not permitted.	SCORING	PROPOSED BY
Section 5.1 General Principles	consistent with the principles of organic production	Yes		
	substance is necessary/essential for its intended use	Yes		
	manufacture, use and disposal does not result in, or contribute to, harmful effects on the environment	As Sodium nitrite (INS 250)		
	lowest negative impact on human or animal health and quality of life	ADI 0-3.7 mg/kg bodyweight (specified by JECFA)		
	approved alternatives not available	As Sodium nitrite (INS 250)		
Section 5.1 (c) Used as additives or processing aids in the production/preservation of food	[substance used only where not possible to preserve (additive) or produce (processing aid) in the absence of other available technology that satisfies these Guidelines]	As Sodium nitrite (INS 250)		
	undergo mechanical/physical, biological/enzymatic or microbial processes	No		
	undergo chemical synthesis if alternative substances/technologies not available	Produced of Nitric acid or so-called nitrosic gases and brines		
	use maintains authenticity of the product	As Sodium nitrite (INS 250)		
	[does not detract from the overall quality]	As Sodium nitrite (INS 250)		

**Proposed substance: Potassium nitrate (INS 252)**

CRITERIA		EVALUATION AGAINST CRITERIA include: detailed description of use and consequences if use of a substance is not permitted.	SCORING	PROPOSED BY
Section 5.1 General Principles	consistent with the principles of organic production	Yes. Natural occurrence in saltpetre mines		
	substance is necessary/essential for its intended use	Yes		
	manufacture, use and disposal does not result in, or contribute to, harmful effects on the environment	As Sodium nitrite (INS 250)		
	lowest negative impact on human or animal health and quality of life	ADI 0-3.7 mg/kg bodyweight (specified by JECFA)		
	approved alternatives not available	As Sodium nitrite (INS 250)		
Section 5.1 (c) Used as additives or processing aids in the production/preservation of food	[substance used only where not possible to preserve (additive) or produce (processing aid) in the absence of other available technology that satisfies these Guidelines]	As Sodium nitrite (INS 250).		
	undergo mechanical/physical, biological/enzymatic or microbial processes	No		
	undergo chemical synthesis if alternative substances/technologies not available	Natural occurrence in saltpetre mines or made of Nitric acid or so-called nitrosic gases and brines		
	use maintains authenticity of the product	As Sodium nitrite (INS 250).		
	[does not detract from the overall quality]	As Sodium nitrite (INS 250).		



**Proposed substance: Sodium ascorbate (INS 301)**

CRITERIA		EVALUATION AGAINST CRITERIA include: detailed description of use and consequences if use of a substance is not permitted.	SCORING	PROPOSED BY
Section 5.1 General Principles	consistent with the principles of organic production	Yes		
	substance is necessary/essential for its intended use	Yes if Nitrate/Nitrite is allowed		
	manufacture, use and disposal does not result in, or contribute to, harmful effects on the environment	No information		
	lowest negative impact on human or animal health and quality of life	ADI not specified by JECFA		
	approved alternatives not available	No		
Section 5.1 (c) Used as additives or processing aids in the production/preservation of food	[substance used only where not possible to preserve (additive) or produce (processing aid) in the absence of other available technology that satisfies these Guidelines]	If Nitrate/Nitrite is allowed, Sodium ascorbate is necessary to reduce the amount of nitrosamines. Is used in meat products if natural occurrence not sufficient		
	undergo mechanical/physical, biological/enzymatic or microbial processes	No		
	undergo chemical synthesis if alternative substances/technologies not available	Yes. Chemical Modification of Ascorbic acid		
	use maintains authenticity of the product	Yes		
	[does not detract from the overall quality]	No		

**Proposed substance: Calcium ascorbate (INS 302)**

CRITERIA		EVALUATION AGAINST CRITERIA include: detailed description of use and consequences if use of a substance is not permitted.	SCORING	PROPOSED BY
Section 5.1 General Principles	consistent with the principles of organic production	Yes		
	substance is necessary/essential for its intended use	Yes, see 5.1		
	manufacture, use and disposal does not result in, or contribute to, harmful effects on the environment	No information		
	lowest negative impact on human or animal health and quality of life	ADI not specified by JECFA		
	approved alternatives not available	No		
Section 5.1 (c) Used as additives or processing aids in the production/preservation of food	[substance used only where not possible to preserve (additive) or produce (processing aid) in the absence of other available technology that satisfies these Guidelines]	Supports effect of Nitrite/Nitrate Is used in meat products if natural occurrence not sufficient		
	undergo mechanical/physical, biological/enzymatic or microbial processes	No		
	undergo chemical synthesis if alternative substances/technologies not available	Yes. Chemical Modification of Ascorbic acid		
	use maintains authenticity of the product	Yes.		
	[does not detract from the overall quality]	No		

**Proposed substance: Potassium ascorbate (INS 303)**

**Switzerland withdraws its proposal to introduce potassium ascorbate on the positive list!**

**Proposed substance: Potassium citrate (INS 332)**

CRITERIA		EVALUATION AGAINST CRITERIA include: detailed description of use and consequences if use of a substance is not permitted.	SCORING	PROPOSED BY
Section 5.1 General Principles	consistent with the principles of organic production	Yes		
	substance is necessary/essential for its intended use	Yes, see 5.1		
	manufacture, use and disposal does not result in, or contribute to, harmful effects on the environment	No		
	lowest negative impact on human or animal health and quality of life	ADI not specified by JECFA		
	approved alternatives not available	No		
Section 5.1 (c) Used as additives or processing aids in the production/preservation of food	[substance used only where not possible to preserve (additive) or produce (processing aid) in the absence of other available technology that satisfies these Guidelines]	Potassium citrate is a salt pertaining citric acid. Can be used in sterilised milk products, candies, jam, marmalade, desserts,		
	undergo mechanical/physical, biological/enzymatic or microbial processes	Yes. Produced like citric acid. For the production are used moulds ( <i>Aspergillus niger</i> ). They produce citric acid and their salts out of sugar solutions		
	undergo chemical synthesis if alternative substances/technologies not available	No		
	use maintains authenticity of the product	Yes		
	[does not detract from the overall quality]	No		