Annex 1. QAI IFOAM Materials List

Note: All inputs to be used on or in IFOAM Certified Organic Products and Crops must appear in this list. This list may be revised by QAI in accordance with any applicable changes to the IFOAM Basic Standards or in accordance with criteria for adding new inputs and additives outlined in Appendices 3 and 5 of the IFOAM Basic Standards. Please note that all operators must additionally comply with all the USDA's National List (7 CFR Sections 205.600 through 205.607).

Fertilizers and Soil Conditioners

Substances description, compositional requirements	**Conditions for use**
I. Plant and Animal Origin	
▪ farmyard manure, slurry and urine	
▪ guano	
▪ vermicastings	
▪ blood meal, meat meal, bone, bone meal	
▪ hoof and horn meal, feather meal, fish and fish products, wool, fur, hair, dairy products	
▪ biodegradable processing by-products, plant or animal origin (e.g. by-products of food, feed, oilseed, brewery, distillery or textile processing)	
▪ crop and vegetable residues, mulch, green manure, straw	
▪ wood, bark, sawdust, wood shavings, wood ash, wood charcoal	
▪ seaweed and seaweed products	
▪ peat (prohibited for soil conditioning)	Excluding synthetic additives; permitted for inclusion in potting mixes.
▪ plant preparations and extracts	
▪ compost made from ingredients listed in this appendix, spent mushroom waste, humus from worms and insects, urban composts from separated sources which are monitored for contamination	
II. Mineral Origin	
▪ basic slag	
▪ calcareous and magnesium amendments	
▪ limestone, gypsum, marl, maerl, chalk, sugar beet lime, calcium chloride	
▪ magnesium rock, kieserite and Epsom salt (magnesium sulfate)	
▪ mineral potassium (e.g. sulfate of potash, muriate of potash, kainite, sylvanite, patentkali)	Shall be obtained by physical procedures but not enriched by chemical processes

Substances description, compositional requirements	Conditions for use
▪ natural phosphates ▪ pulverized rock, stone meal ▪ clay (e.g. bentonite, perlite, vermiculite, zeolite) ▪ sodium chloride ▪ trace elements ▪ sulfur	
III. Microbiological biodegradable processing by-products of microbial origin (e.g. byproducts of brewery or distillery processing) microbiological preparations based on naturally occurring organisms	
IV. Others • biodynamic preparations	

Crop Protectants and Growth Regulators

Substances Description, compositional requirements	Conditions for use
I. Plant and Animal Origin	
▪ algal preparations ▪ animal preparations and oils ▪ beeswax ▪ chitin nematicides (natural origin) ▪ coffee grounds ▪ corn gluten meal (weed control) ▪ dairy products (e.g. milk, casein) ▪ gelatine ▪ lecithin ▪ natural acids (e.g. vinegar) ▪ neem (*Azadirachta indica*) ▪ plant oils ▪ plant preparations ▪ plant based repellents ▪ propolis	
▪ pyrethrum (*Chrysanthemum cinerariaefolium*)	The synergist Piperonyl butoxide is prohibited.
▪ quassia (*Quassia amara*) ▪ rotenone (*Derris elliptica, Lonchocarpus* spp. *Thephrosia spp.)* ▪ ryania (*Ryania speciosa*) ▪ sabadilla ▪ tobacco tea (pure nicotine is forbidden)	

II. Mineral Origin

- chloride of lime
- clay (e.g. bentonite, perlite, vermiculite, zeolite)
- copper salts (e.g. sulfate, hydroxide, oxychloride, octanoate) — Max 8 kg/ha per year (on a rolling average basis)
- diatomaceous earth
- light mineral oils (paraffin)
- lime sulfur (Calcium polysulfide)
- potassium bicarbonate
- potassium permanganate
- quicklime
- silicates (e.g. sodium silicates, quartz)
- sodium bicarbonate
- sulfur

III. Microorganisms

- fungal preparations
- bacterial preparations (e.g. *Bacillus thuringiensis*)
- release of parasites, predators and sterilized insects
- viral preparations (e.g. *granulosis virus*)

IV. Others

- biodynamic preparations
- calcium hydroxide
- carbon dioxide
- Calcium Lingnosulfonate
- ethyl alcohol
- homeopathic and Ayurvedic preparations
- Iron Phosphates (for use as molluscicide)
- seasalt and salty water
- soda
- soft soap
- sulfur dioxide

V. Traps, Barriers, Repellents

- physical methods (e.g. chromatic traps, mechanical traps)
- mulches, nets
- pheromones – in traps and dispensers only

List of Approved Additives and Processing Aids

Where the substances listed in this annex can be found in nature, natural sources are preferred. Substances of certified organic origin are preferred.

1**Int'l Numbering System**	**Product**	**Additive**	**Pro. Aid**	**Limitation / Note**
INS 170	calcium carbonate	X	X	
INS 181	tannin		X	only for wine

INS 184	tannic acid		X	filtration aid for wine
INS 220	sulfur dioxide	X		only for wine
1**Int'l Numbering System**	**Product**	**Additive**	**Pro. Aid**	**Limitation / Note**
INS 224	potassium metabisulphite	X		only for wine
INS 270	lactic acid	X	X	
INS 290	carbon dioxide	X	X	
INS 300	ascorbic acid	X		
INS 306	tocopherols, mixed natural concentrates	X		
INS 322	lecithin	X	X	
INS 330	citric acid	X	X	
INS 331	sodium citrates	X		
INS 332	potassium citrates	X		
INS 333	calcium citrates	X		
INS 334	tartaric acid	X	X	only for wine
INS 335	sodium tartrate	X	X	
INS 336	potassium tartrate	X	X	
INS 341	mono calcium phosphate	X		only for "raising flour"
INS 342	ammonium phosphate	X		restricted to 0.3 gm/l in wine
INS 400	alginic acid	X		
INS 401	sodium alginate	X		
INS 402	potassium alginate	X		
INS 406	agar	X		
INS 407	carrageenan	X		
INS 410	locust bean gum	X		
INS 412	guar gum	X		
INS 413	tragacanth gum	X		
INS 414	arabic gum	X		only for milk products, fat products, confectionary, sweets, eggs
INS 415	xanthan gum	X		only fat, fruit and vegetable products and cakes and biscuits
INS 440	pectin	X		unmodified
INS 500	sodium carbonates	X	X	
INS 501	potassium carbonates	X	X	
INS 503	ammonium carbonates	X		only for cereal products, confectionary, cakes and biscuits
INS 504	magnesium carbonates	X		
INS 508	potassium chloride	X		
INS 509	calcium chloride	X	X	
INS 511	magnesium chloride	X	X	only for soybean products
INS 513	sulfuric acid		X	pH adjustment of water during sugar processing
INS 516	calcium sulfate	X		for soybean products, confectionary and in bakers' yeast
INS 517	ammonium sulfate	X		only for wine, restricted to 0.3 mg/l
INS 524	sodium hydroxide	X	X	for sugar processing and for the surface treatment of traditional bakery products

INS 526	calcium hydroxide	X	X	food additive for maize tortilla flour, processing aid for sugar
1**Int'l Numbering System**	**Product**	**Additive**	**Pro. Aid**	**Limitation / Note**
INS 551	silicon dioxide (amorphous)		X	for wine, fruit and vegetable processing
INS 553	talc		X	
INS 901	beeswax		X	
INS 903	carnauba wax		X	
INS 938	argon	X		
INS 941	nitrogen	X	X	
INS 948	oxygen	X	X	
	activated carbon		X	
	bentonite		X	only for fruit and vegetable products
	casein		X	only for wine
	diatomaceous earth		X	only for sweeteners and wine
	egg white albumen		X	only for wine
	ethanol		X	
	gelatin		X	only for wine, fruit and vegetable
	isinglass		X	only for wine
	kaolin		X	
	perlite		X	
	preparations of bark		X	only for sugar
	ethylene gas		X	for ripening

1 Food additives may contain carriers which shall be evaluated

Flavoring Agents

- Organic flavoring extracts (including volatile oils)
- Volatile (essential) oils produced by means of solvents such as oil, water, ethanol, carbon dioxide and mechanical and physical processes
- Natural smoke flavor
- Natural flavoring preparations are only to be approved based on the IFOAM Procedure to Evaluate Additives and Processing Aids

Preparations of Micro-organisms and Enzymes for use in food processing

These may be used as ingredient or processing aids with approval based on the IFOAM Procedure to Evaluate Additives and Processing Aids for Organic Food Products.

- Organic certified micro-organisms
- Preparations of micro-organisms
- Enzymes and enzyme preparations

Formulated Inputs

Any formulated input shall have only active ingredients on the Crop Protectants and Growth Regulators Section of this list, and all other components shall meet the criteria of Appendix 3 of the IFOAM Basic Standards. Formulated products with only active ingredients on the Crop Protectants and Growth Regulators Section of this list, but with other components that have not been reviewed against the above criteria may be used until 2005.

Vitamins and Minerals

Minerals (including trace elements), vitamins and similar isolated ingredients shall not be used unless their use is legally required or where severe dietary or nutritional deficiency can be demonstrated.