

European Spice Association
Quality Minima Document

Rev. 5

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European Spice Association Quality Minima Document

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1. An Introduction to the European Spice Association

The European Spice Association, ESA, is the umbrella organisation of the European spice industry. Members of ESA are the national federations of the spice industry in the member countries of the European Union, Switzerland and Turkey. Associated membership of ESA is also available to national or international associations or organizations representing exporters/traders at origin and processors, packers/traders or associations from European countries (other than the European Union) that are able to satisfy the membership requirement.

Companies within the European Union (EU), European Free Trade Association (EFTA) and Turkey with a major involvement in the processing, packing and/or marketing of herbs and spice products may apply for direct membership of ESA.

Objectives of the Association:

- Represent the interests of its members with the representative bodies and departments of the European Union, as well as international institutions and organizations;
- Promote the interests of members in respect of the products concerned and to protect the image of the products and the sector;
- Promote the consumers' and customers' interest;
- Investigate subjects of common interest to the members in the scientific, legislative, technological and economic fields.

ESA is member of the International Organisation of Spice Trade Associations (IOSTA) and supports its objectives.

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2. Scope of the Quality Minima Document

This document describes the quality minima for dried herbs and spices, which should be demanded by buyers when these products are purchased for further processing within the EU.

This document applies to “business to business” transactions; it does not extend to products for direct sale to the final consumer.

All products that have already been further processed (for example grinding, microbial reduction) are not in the scope of this document, unless otherwise stated.

3. Purpose of the ESA Quality Minima Document

The purpose of this document is to ensure that herbs and spices, as agricultural commodities, have been grown, harvested and further treated to ensure that the products meet the requirements of this quality minima document.

To achieve this objective ESA supports the principles of Good Agricultural Practice (GAP) and Good Manufacturing Practice (GMP). These principles serve all parties involved in the supply chain as they focus on prevention and control rather than re-conditioning which is not always technologically possible.

The harvest, cultivation, transport and post-harvest conditions should ensure the material is stored and handled in such a way as to prevent adulteration, contamination and the growth of micro-organisms.

4. Definitions

4.1. Extraneous matter:

All matter from the specific plant other than the desired part. Investigations by visual checks, not microscopic.

4.2. Foreign matter:

All matter that is foreign to the plant. Foreign matter can be hazardous or non-hazardous. Hazardous material includes other foreign vegetable matter with allergenic or toxic properties, sharp objects in addition to glass, metal, stones, wood etc.

4.3. Traces:

Low levels of volatiles (in general < 0.5 %) for which analytical quantification by using ISO 6571 is not accurate and reliable. The sensorial flavouring properties should be agreed between buyer and seller.

4.4. Good Agricultural Practice (GAP) in the Use of Pesticides (Codex Alimentarius Definition):

"GAP" includes the nationally authorised safe uses of pesticides under actual

conditions necessary for effective and reliable pest control. It encompasses a range of levels of pesticide applications up to the highest authorised use, applied in a manner, which leaves a residue, which is the smallest amount practicable.

Authorised safe uses are determined at the national level and include nationally registered or recommended uses, which take into account public and occupational health and environmental safety considerations. Actual conditions include any stage in the production, storage, transport, distribution and processing of food commodities and animal feed.

The term 'pesticides' is used to summarize a group of active ingredients, which are used for the control of crop pests, crop diseases and weeds, stock protection, animal ectoparasites and pests in public health. Residues should be the smallest amount practicable, legal limits must not be exceeded.

4.5. Traceability:

The traceability of food and any other substance intended to be, or expected to be, incorporated into a food shall be established at all stages of production, processing and distribution.

Food business operators shall be able to identify any person from whom they have been supplied with a food or any substance intended to be, or expected to be, incorporated into a food.

Food business operators shall have in place systems and procedures to identify the other businesses to which their products have been supplied. (see Article 18 of Regulation (EC) No 178/2002, page 4 of this document).

This means

- each processor should be able to ensure that foodstuffs entering the premises are traceable to the supplier;
- each processor should be able to ensure that foodstuffs leaving the control of the business are traceable to the immediate customer.

4.6. Codex Classification of Foods and Animal Feeds (CAC/MISC)

Definition of herbs and spices at:

http://www.codexalimentarius.net/web/standard_list.do?lang=en

5. **Relevant ESA documents:**

Available at: www.esa-spices.org are:

- ESA definition of culinary herbs and spices
- ESA list of culinary herbs and spices
- ESA Adulteration Awareness Paper

6. European Spice Association Specifications of Quality Minima for Herbs and Spices

SUBJECT	
Sampling	ISO 948 For mycotoxins: See the relevant Commission Regulation at: www.esa-spices.org
CHEMICAL/ PHYSICAL ANALYSIS	
Ash	For values see appendix I; for analysis see appendix II
Acid Insoluble Ash	For values see appendix I; for analysis see appendix II
Moisture	For values see appendix I; for analysis see appendix II
Volatile Oil	For values see appendix I; for analysis see appendix II
Water Activity	Water activity is a key parameter that affects microbiological growth. Therefore ESA recommends a target value of max. 0.65.
Bulk Density	Due to methodology variability both method and value should be agreed between buyer and seller.
Microbiology	The product shall be free from microorganisms at such levels which may represent a hazard to health. If the product is treated to reduce microbial loads before being imported into destination country the treatment will be such as to render/ensure the microbiological safety of consumers. Specific requirements to be agreed between buyer and seller.
CONTAMINANTS/ RESIDUES	
Pesticides	Shall be utilised in accordance with good agricultural practice. Application and residue limits must comply with existing EU and/or national legislation.
Heavy Metals	Must comply with national / EU legislation (e.g. cadmium, lead).
Mycotoxins	Herbs and spices must be grown, harvested, handled and stored in such a manner as to prevent the occurrence of mycotoxins. If found, levels must comply with existing national and / or EU legislation.
Allergens	Refer to ESA Position Statement

Treatments	<p>Only legally permitted processing procedures may be applied in any treatment used for product quality or safety.</p> <p>EC approved fumigants may be used in accordance with manufacturers' instructions but this must be indicated on the accompanying documents. Ethylene oxide (ETO) treatment has been banned under European legislation. This ban covers both material with treated within and outside of the EU (i.e. the use of material that has been ETO treated before importation is also illegal).</p> <p>Irradiation, at present, does not have full consumer acceptability, so the treatment has to be agreed between buyer and seller. If it is agreed irradiation is only permitted in EU approved irradiation plants. However EU legislation requires that the irradiated product is declared at all levels within the food chain.</p> <p>Members of ESA support the use of environmentally friendly fumigants (Montreal protocol) and non-toxic processes (e.g. microbial reduction under pressure, steam treatment).</p> <p>All products subject to processing (for example grinding, microbial reduction) are not in the scope of this document, unless otherwise stated.</p>
PURITY	
Botanical Species	In compliance with Food Law Regulations. If not regulated: ESA list of Culinary Herbs and Spices, or to be agreed between buyer and seller.
Adulteration	Must be free from.
Infestation	Should be free in practical terms from live and/or dead insects, insect fragments and rodent contamination visible to the naked eye (corrected if necessary for abnormal vision).
Extraneous matter	Herbs max. 2%, Spices max. 1% by weight
Foreign Matter	The European food operator has to evaluate if products fully comply with safety requirements before selling them to the final consumer. If not, additional processing will be necessary.
SENSORY PROPERTIES	Must be free from off odour or off flavor.
PACKAGING	The packaging must not be a source of contamination or migration, should be food grade and must protect the product quality during transportation and storage.

Appendix I Chemical / physical parameters; dry base for ASH, AIA, V/O

PRODUCT ¹⁾	ASH % W/W MAX *	AIA % W/W MAX *	H ₂ O % W/W MAX *	V/O ml/100g MIN *	NOTES
ANISE	9.0	2.5	12	1.0	
BASIL	16	2.0	12	0.5	
CARAWAY	8.0	1.5	13	2.5	
CARDAMOM	9.0	2.5	12	4.0	
CELERY SEED	12	3.0	11	1.5	
CELERY LEAVES	20	1.0	8.0	Traces**	
CHERVIL	17	2.0	8.0	Traces**	
CHILLI	10	1.6	11	-	
CHIVES	13	2.0	8.0	Traces**	
CINNAMON (CEYLON) (CASSIA)	7.0	2.0	14	0.7 – 1.0 (ISO 6539 ISO 6538) Depending on botanical species	The use of SO ₂ is only permitted for Ceylon cinnamon, Annex III part B Directive 95/2/EC Styrene off notes can be prevented through the control of moisture content throughout the supply chain.
CLOVES	7.0	0.5	12	14	
CORIANDER SEED Microcarpum Macrocarpum	7.0	1.5	12	0.6 Traces**	
CORIANDER LEAVES	15	1.0	8.0	Traces**	
CUMIN	14	3.0	13	1.5	
DILL SEED	10	2.5	12	1.0	
DILL TOPS	15	2.0	8.0	Traces**	
FENNEL	10	2.0	12	1.5	
FENUGREEK	7.0	1.5	11	Traces**	
GALANGAL (ground)	9.0	4.0	10	Traces**	
GARLIC PRODUCTS	6.0	0.5	6.5	-	Due to the hygroscopic nature of these products lower moisture content may be required

* see Appendix II;

** see page 4

PRODUCT ¹⁾	ASH % W/W MAX *	AIA % W/W MAX *	H ₂ O % W/W MAX *	V/O ml/100g MIN *	NOTES
GINGER	8.0	2.0	12	1.5	
JUNIPER BERRIES	5.0	1.0	16	1.4	
LAUREL LEAVES	7.0	2.0	8.0	1.0	
LEMON GRASS	8.0	2.5	10	Traces**	
MACE	4.0	0.5	10	5.0	
MARJORAM	10	2.0	12	0.7	
MUSTARD	6.5	1.0	10	-	
NUTMEG	3.0	0.5	10	5 - 6.5 Depending on grade	
ONION PRODUCTS Allium cepa	5.0	0.5	6.0 - 8.0 (depending on origin)	-	Due to the hygroscopic nature of these products lower moisture content may be required.
OREGANO	10	2.0	12	1.5	
PAPRIKA POWDER	10	2.0	11	-	
PARSLEY	14	1.5	7.5	Traces**	English origin is not covered.
PEPPER BLACK	7.0	1.5	12	2.0	
PEPPER WHITE	3.5	0.3	12	1.5	
PEPPER GREEN (dried)	3.0	0.3	13*	1.0	* If freeze dried: 8 %
PIMENTO Jamaica Other origins	4,5 5.0	0.4 1.0	12 12	3.0 2.0	
PINK PEPPER (Schinus)	7.0	1.8	14*	2.0	* If freeze dried: 8 %
POPPY SEEDS	8	1	8	n.a.	

* see Appendix II;

** see page 4

PRODUCT¹⁾	ASH % W/W MAX *	AIA % W/W MAX *	H₂O % W/W MAX *	V/O ml/100g MIN *	NOTES
ROSEMARY	8.0	1.0	10	1.0	
SAFFRON WHOLE	8.0	1.0	12	-	
SAFFRON GROUND	8.0	1.5	10	-	
SAGE	12	2.0	12	1.5	
SAVOURY - Mountain Type (wild grown)	12	1.0	12	0.5	
SAVOURY – Garden Type (cultivated)	12	4	12	1.5	
SPEARMINT	12	2.5	13	0.5	
STAR ANISE	3.0	0.5	8.0	7.0	
TARRAGON	12	1.5	8.0	0.5	
THYME	12	3.5	12	1.0	
TURMERIC WHOLE	8.0	2.0	12	2.5	
GROUND	9.0	2.5	10	1.5	

1) The parameters listed shall apply to the whole product unless otherwise specified.

* see Appendix II

** see page 4

Appendix II Recommended analytical methods

Unless otherwise agreed between buyer and seller, ESA recommends the following methods:

1. Spices and condiments – Sampling EN ISO 948 – 2009
2. Spices and condiments – Preparation of a ground sample for analysis ISO 2825 - 1981
3. Spices and condiments – Determination of extraneous matter and foreign matter content ISO 927 – 2009 (*see definition chapter 5*)
4. Spices and condiments – Determination of total ash ISO 928 – 1997
5. Spices and condiments – Determination of acid insoluble ash ISO 930 – 1997
6. Spices and condiments – Determination of moisture content – (Entrainment method) ISO 939 - 1980
7. Spices and condiments – Determination of volatile oil EN ISO 6571 2009
8. Analysis of spices and condiments – Determination of loss in mass of capsicum and allium species and of dried vegetables by vacuum oven drying – DIN 10236 (German standard)

These methods are available at the national standardisation bodies or at www.iso.org (click on ISO store)

Appendix III Other documents for information

To help suppliers meet the requirements of the ESA quality minima the following documents may be beneficial:

1. Code of hygienic practice for spices and dried aromatic plants CAC/RCP 42 – 1995, Codex Alimentarius Commission
2. Manual on the Packaging of dried herbs and spices – prepared by the International Trade Centre, ITC, Geneva 1999, ISBN 92-9137-114-9
3. With respect to cleaning and reconditioning, ESA supports the principles of Section 8 “Cleaning and Reconditioning” of the Clean Spices Booklet issued by ASTA, October 2000
4. Guidelines for the application of the Hazard Analysis Critical Control point (HACCP) system Alinorm 93/13 A App. II Codex Alimentarius

Legal requirements for herbs and spices in the EU

In Europe there is European or national legislation applicable to herbs and spices. For example, the following legal requirements set by the EU-Commission apply to herbs and spices (Documents are available at <http://europa.eu.int/eur-lex/lex/>).

General legislation:

- Regulation (EC) No 178/2002 of 28 January 2002 laying down the **general principles and requirements of food law**, establishing the European Food Safety Authority and laying down procedures in matters of food safety (O.J. L 31, 1.2.2002)

This regulation addresses amongst others, risk analysis (Art. 6), precautionary principle (Art. 7), food safety requirements (Art. 14), traceability (Art. 18).

Labelling:

- REGULATION (EU) No 1169/2011 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 25 October 2011 on the provision of **food information to consumers**, amending Regulations (EC) No 1924/2006 and (EC) No 1925/2006 of the European Parliament and of the Council, and repealing Commission Directive 87/250/EEC, Council Directive 90/496/EEC, Commission Directive 1999/10/EC, Directive 2000/13/EC of the European Parliament and of the Council, Commission Directives 2002/67/EC and 2008/5/EC and Commission Regulation (EC) No 608/2004 (O.J. L 304, 22.11.2011)

This Regulation allows the consumer to make an informed choice that suits both their dietary and food intolerance needs. ESA recommends that particular attention is paid to potential for cross contamination within the food chain. This includes items such as cereals containing gluten, peanuts (ground nuts), nuts, celery, mustard, sesame seeds and products thereof. These are within the legislation (see Annex II of the Regulation) identified amongst others as potential allergens within our industry. Also due to allergenic reactions of some consumers the addition of sulphur dioxide also has to be declared if the level is above 10 ppm.

Foodstuffs that have been treated with ionising must be labelled "irradiated" or "treated with ionising radiation".

- COMMISSION REGULATION (EC) No 41/2009 of 20 January 2009 concerning the composition and labelling of foodstuffs suitable for people intolerant to gluten (OJ L 16, 21.1.2009)
- Regulation (EC) No 1332/2008 of 16 December 2008 on **food enzymes** and amending Council Directive 83/417/EEC, Council Regulation (EC) No 1493/1999, Directive 2000/13/EC, Council Directive 2001/112/EC and Regulation (EC) No 258/97 (O.J. L 354, 31.12.2008)

- COMMISSION IMPLEMENTING REGULATION (EU) No 1321/2013 of 10 December 2013 establishing the Union list of authorised **smoke flavouring primary products for use as such in or on foods** and/or for the production of derived smoke flavourings (O.J. L 333 12.12.2013)
- Council Regulation (EC) No 834/2007 of 28 June 2007 on **organic production and labelling of organic products** and repealing Regulation (EEC) No 2092/91 (O.J. L 189, 20.06.2007)
- COMMISSION REGULATION (EC) No 889/2008 of 5 September 2008 laying down **detailed rules for the implementation of Council Regulation (EC) No 834/2007 on organic production and labelling of organic products with regard to organic production, labelling and control** (O.J. L 250, 18.09.2008)
- Council Regulation (EC) No 967/2008 of 29 September 2008 amending Regulation (EC) No 834/2007 on **organic production and labelling of organic products** (O.J. L 264, 3 October 2008)
- COMMISSION REGULATION (EU) No 271/2010 of 24 March 2010 amending Regulation (EC) No 889/2008 laying down detailed rules for the implementation of Council Regulation (EC) No 834/2007, as regards the **organic production logo** of the European Union (O. J. L 84 of 24 March 2010)
- COMMISSION REGULATION (EU) No 471/2010 of 31 May 2010 amending Regulation (EC) No 1235/2008, **as regards the list of third countries from which certain agricultural products obtained by organic production must originate to be marketed within the Union**

Contaminants:

- Regulation (EC) No 1881/2006 of 19 December 2006 setting maximum levels for **certain contaminants** in foodstuffs (O. J. L 364, 20.12.2006)

This regulation covers amongst others, mycotoxins and heavy metals such as cadmium, lead, and mercury.

For **aflatoxins** EU legislation covers only the spices Capsicum spp (dried fruits including chilies, chili powder, cayenne and paprika), Piper spp. (fruits thereof including white and black pepper), Myristica fragrans (nutmeg and mace), Zingiber officinale (ginger), Curcuma longa (turmeric). For other spices national (aflatoxin) legislation is applicable.

- COMMISSION REGULATION (EU) No 165/2010 of 26 February 2010 amending Regulation (EC) No 1881/2006 setting maximum levels for certain contaminants in foodstuffs as regards **aflatoxins** (O. J. L 50, 27.2.2010)

The Regulation extends the scope to mixtures of spices containing one or more of the abovementioned spices. Moreover it sets maximum limits for oilseeds such as mustard seeds, sesame seeds and poppy seeds.

- COMMISSION REGULATION (EU) No 594/2012 of 5 July 2012 amending Regulation (EC) 1881/2006 as regards the maximum levels of the contaminants ochratoxin A, non-dioxin-like PCBs and melamine in foodstuffs (O.J. L 176, 6.7.2012)

The Regulation sets maximum limits for ochratoxin A in spices, including dried spices, as follows:

Piper spp (fruits thereof, including white and black pepper), *Myristica fragrans* (nutmeg and mace), *Zingiber officinale* (ginger), *Curcuma longa* (turmeric)
Capsicum spp. (dried fruits thereof, whole or ground, including chillies, chilli powder, cayenne and paprika) and mixtures of spices containing one of the abovementioned spices.

- COMMISSION REGULATION (EU) 2015/1933 of 27 October 2015 amending Regulation (EC) No 1881/2006 as regards **maximum levels for polycyclic aromatic hydrocarbons** in cocoa fibre, banana chips, food supplements, dried herbs and dried spices (O.J. L 282 of 28.10.2015)
- Regulation (EC) No. 401/2006 of 23 February 2006 laying down the **methods of sampling and analysis for the official control of levels of mycotoxins in foodstuffs** (O.J. L 70, 9. March 2006)

In this Regulation methods of sampling as well as precision criteria for methods of analysis for official control by enforcement authorities are defined.

- COMMISSION REGULATION (EU) No 178/2010 of 2 March 2010 amending Regulation (EC) No 401/2006 as regards groundnuts (peanuts), other oilseeds, tree nuts, apricot kernels, liquorice and vegetable oil (OJ L 52, 3.3.2010)

This Regulation establishes the official sampling plan for OTA.

- **Guidance document for competent Authorities for the Control of Compliance with EU Legislation on Aflatoxins**

The document focuses mainly on the official control of aflatoxin contamination in food products. At:

<http://ec.europa.eu/food/food/chemicalsafety/contaminants/docs/guidance-2010.pdf>

- COMMISSION RECOMMENDATION of 3 December 2013 on the **reduction of the presence of dioxins**, furans and PCBs in feed and food (O.J. L 323, 4.12.2013)

The recommendation sets action levels for dioxins in fresh and dried herbs.

Additives:

- Regulation (EC) No 1333/2008 of the European Parliament and of the Council of 16 December 2008 on **food additives**

This Regulation replaces the 3 EC Directives on food additives (colours, sweeteners and other food additives). The annexes of the Directives have been merged into one annex.

- COMMISSION REGULATION (EU) No 1129/2011 of 11 November 2011 amending Annex II to Regulation (EC) No 1333/2008 of the European Parliament and of the Council by establishing a Union list of **food additives** (O.J. L 295, 12.11.2011)

Spices and spice blends are included in the Annex as foodstuffs which may not contain added colours.

Specific limits for SO₂ are provided for dried ginger (150 ppm) and onion, garlic and shallot pulp (300 ppm).

SO₂ in cinnamon (*Cinnamomum zeylanicum*) is permitted as additive (150 mg/kg).

- Regulation (EC) No 1332/2008 of the European Parliament and of the Council of 16 December 2008 on **food enzymes** and amending Council Directive 83/417/EEC, Council Regulation (EC) No 1493/1999, Directive 2000/13/EC, Council Directive 2001/112/EC and Regulation (EC) No 258/97

This regulation requires that food enzymes are officially registered and permitted for use in foodstuffs. They are regarded as food ingredients and must be declared on the label.

- Regulation (EC) No 1334/2008 of the European Parliament and of the Council of 16 December 2008 on **flavourings and certain food ingredients with flavouring properties for use in and on foods** and amending Council Regulation (EEC) No 1601/91, Regulations (EC) No 2232/96 and (EC) No 110/2008 and Directive 2000/13/EC

This regulation fixes limits for active principles in composite food. Active principles may be incorporated into food by herbs and spices or flavourings or other food ingredients with flavouring properties.

- COMMISSION REGULATION (EC) No 669/2009 of 24 July 2009 implementing Regulation (EC) No 882/2004 **as regards the increased level of official controls on imports of certain food of non-animal origin** (O.J. L 194 of 25.7.2009)

This Regulation lays down rules concerning the increased level of official controls to be carried out pursuant to Article 15(5) of Regulation (EC) No

882/2004 at the points of entry into EU on imports of the feed and food of non-animal origin listed in Annex I to this Regulation.

Irradiation:

[EU overview at: http://ec.europa.eu/food/food/biosafety/irradiation/comm_legisl_en.htm](http://ec.europa.eu/food/food/biosafety/irradiation/comm_legisl_en.htm)

- Directive 1999/2/EC of 22 February 1999 on the approximation of the laws of the Member States concerning **foods and food ingredients treated with ionizing radiation** (O.J. L 66, 13.3.1999)

Condition for authorising food radiation:

1. Food irradiation may be authorised only if:

- there is a reasonable technological need,
- it present no health hazard and is carried out under the conditions proposed,
- it is of benefit to the consumer,
- it is not used as a substitute for hygiene and health practices or for good manufacturing or agricultural practice.

2. Food irradiation may be used only for the following purposes:

- to reduce the incidence of food-borne disease by destroying pathogenic organisms,
 - to reduce spoilage of foodstuffs by retarding or arresting decay processes and destroying spoilage organisms,
 - to reduce loss of foodstuffs by premature ripening, germination or sprouting,
 - to rid foodstuffs of organisms harmful to plant or plant products.
- Directive 1999/3/EC of 22 February 1999 on the establishment of a Community **list of foods and food ingredients treated with ionizing radiation** (O.J. L 66, 13.3.1999)
 - Communication from the Commission on **foods and food ingredients authorized for treatment with ionizing radiation** in the Community (O.J. C 241, 29.8.2001)
 - Commission Decision of 23 October 2002 adopting the list of **approved facilities in third countries for the irradiation of foods** (O.J. L 287, 25.10.2002) amended by Decision of 7.10.2004 (O.J. L 314, 13.10.2004) and Decision of 4.12.2007 (O.J. L 323, 8.12.2007)
 - List of Member States' **authorizations of food and food ingredients which may be treated with ionizing radiation** (O.J. C 56, 11.3.2003)
 - **List of approved facilities for the treatment of foods and food ingredients with ionising radiation in the Member States** (According to Article 7(4) of Directive 1999/2/EC of the European Parliament and the Council on the approximation of the laws of the Member States concerning foods and food in-

redients treated with ionising radiation (1)) (This text cancels and replaces the text published in the Official Journal of the European Union C 336 of 17 November 2011, p. 14) (2012/C 265/04) (O.J. C 265, 1.9.2012)

- Commission Decision of 7 October 2004 **amending** Decision of 23 October 2002 adopting **the list of approved facilities in third countries for the irradiation of foods** (O.J. L 314, 13.10.2004) and amendments
- Commission Decision of 22 March 2010 amending Decision 2002/840/EC **as regards the list of approved facilities in third countries for the irradiation of foods** (O.J. L 75 of 23 march 2010)

Pesticides:

- Regulation (EC) No 396/2005 on **maximum residue levels of pesticides in or on food and feed of plant and animal origin** and amending Council Directive 91/414/EEC (O. J. L70, 16. 03. 2005)

This Regulation harmonizes legislation on pesticide residues within the EU.

- Regulation (EC) No 299/2008 of the European Parliament and of the Council of 11 March 2008 amending Regulation (EC) No 396/2005 on maximum residue levels of pesticides in or on food and feed of plant and animal origin, as regards the implementing powers conferred on the Commission
- COMMISSION REGULATION (EU) No 212/2013 of 11 March 2013 **replacing Annex I to Regulation (EC) No 396/2005** of the European Parliament and of the Council as regards additions and modifications with respect to the products covered by that Annex (O.J. L 68, 12.3.2013)

Spices and the aromatic herbs can be found in the categories VEGETABLES FRESH OR FROZEN – **Fruiting vegetables** – Solanacea (paprika) and **Leaf vegetables and fresh herbs** and SPICES.

- COMMISSION REGULATON (EC) No 149/2008 of 29 January 2008 amending Regulation (EC) No 396/2005 of the European Parliament and of the Council by **establishing Annexes II, III and IV setting maximum residue levels for products covered by Annex I thereto.**

Dehydration factors may be applied to dried peppers and dried herbs and all active substances listed in the Annexes of Regulation 396/2005 or not.

<http://www.esa-spies.org/download/dehydrationfactorsjournalofconsumerrotectionandfoodsafety.pdf>

Based on these provisions ESA has proposed dehydration factors to be applied when assessing pesticide residues in dried peppers and dried herbs. These dehydration factors have been presented to the EU Commission for consideration and inclusion into Annex VI of Regulation 396/2005. They have been published on the ESA website and in the Journal of Consumer Protection and Food Safety, German Federal Office for Consumer Protection and Food Safety (BVL), Heft 4, November 2008).

- COMMISSION REGULATION (EC) No 839/2008 of 30 August 2008 amending Regulation (EC) No 396/2005 of the European Parliament and of the Council **as regards Annexes II, III and IV on maximum residue levels of pesticides in or on certain products.**
- COMMISSION REGULATION (EC) No 260/2008 of 18 March 2008 amending Regulation (EC) No 396/2005 of the European Parliament and of the Council by **establishing Annex VII listing active substance/product combinations covered by a derogation as regards post-harvest treatments with a fumigant**

The pesticide database of the EU Commission can be found at:

<http://ec.europa.eu/food/plant/pesticides/eu-pesticides-database/public/?event=homepage&language=EN> and at http://ec.europa.eu/food/plant/protection/pesticides/database_pesticide_en.htm

Hygiene:

- Regulation (EC) No 852/2004 of the European Parliament and of the Council of 29 April 2004 on the **hygiene of foodstuffs** (OJ L 139, 30.4.2004)

This regulation stipulates that Food business operators producing or harvesting plant products are to take adequate measures, to ensure hygienic production, transport and storage conditions for, and the cleanliness of, plant products. Food business operators are to keep and retain records relating to measures put in place to control hazards in an appropriate manner, commensurate with the nature and size of the food business. Food business operators are to make relevant information contained in these records available to the competent authority and receiving food business operators on request.

As regards the **hygiene of imported food**, the following hygiene requirements are applicable:

The operators:

- Are to ensure that the products are protected against contamination and to use potable water, or clean water, whenever necessary to prevent contamination;
- Are to comply with appropriate Community and national legislative provisions relating to the control hazards in primary production and associated operation;
- Are to keep clean and, where necessary after cleaning, to disinfect, all the equipment, containers and places the spices are in contact with;
- Are to take account of the results of any relevant analyses carried out on samples taken from plants or other samples that have importance to human health
- Are to take appropriate remedial action when informed of problems identified during official controls;

- Guidance Document – Implementation of certain provisions of Regulation (EC) No 852/2004 on the hygiene of foodstuffs. At: http://ec.europa.eu/food/food/biosafety/hygienelegislation/guidance_doc_852-2004_en.pdf
- Corrigendum to Regulation (EC) No 882/2004 of the European Parliament and of the Council of 29 April 2004 on official controls performed to ensure the verification of compliance with feed and food law, animal health and animal welfare rules (O.J. L 191, 30.4.2004)

Import controls:

- COMMISSION REGULATION (EC) No 669/2009 of 24 July 2009 implementing Regulation (EC) No 882/2004 of the European Parliament and of the Council as regards the **increased level of official controls on imports of certain feed and food of non-animal origin** and amending Decision 2006/504/EC (O.J. L 194, 25.7.2009)
- COMMISSION REGULATION (EU) No 212/2010 of 12 March 2010 amending Regulation (EC) No 669/2009 implementing Regulation (EC) No 882/2004 of the European Parliament and of the Council as regards the increased level of official controls on imports of certain feed and food of non-animal origin (OJ L 65, 13.3.2010)
- COMMISSION REGULATION (EU) No 878/2010 of 6 October 2010 **amending Annex I** to Regulation (EC) No 669/2009 as regards the increased level of official controls on imports of certain food and feed of non-animal origin (O.J. L 264 of 7.10.2010)

Rapid Alerts:

Rapid Alerts at: http://ec.europa.eu/food/food/rapidalert/archive_en.htm

Relevant ESA documents are available at: www.esa-spices.org

Appendix V Dehydration Factors

Product	Dehydration Factor
Basil	7
Celery leaves	10
Chervil	5
Chives	7
Coriander leaves	13
Dill tops	7
Garlic	3
Laurel leaves	7
Lovage leaves	7
Marjoram	7
Onion	9
Oregano	6
Parsley leaves	6

Mint	7
Capsicums	10
Rosemary	7
Sage	7
Savory herb	7
Tarragon	7
Thyme	7