



Agenda Item 10

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April 2010

JOINT FAO/WHO FOOD STANDARDS PROGRAMME

CODEX COMMITTEE ON RESIDUES OF VETERINARY DRUGS IN FOODS

Nineteenth Session

Burlington, Vermont, United States of America, 30 August – 3 September 2010

DISCUSSION PAPER ON VETERINARY DRUGS IN HONEY PRODUCTION

(prepared by the CCRVDF electronic working group on honey)

INTRODUCTION

1. At the 18th session of the Codex Committee on Residues of Veterinary Drugs (CCRVDF) in Natal, Brazil (11-15 May 2009), the Committee agreed to establish an electronic working group under the chairmanship of the United Kingdom. The purpose of the group is to:-

- compile and analyse the information received on honey related issues requested in circular letter CL 2009/21 RVDF of July 2009; and
- prepare a review of the guidelines of good veterinary practice in honey production

for consideration by the 19th session of the CCRVDF.

PROCEEDINGS OF THE ELECTRONIC WORKING GROUP

2. The Working Group worked primarily by email and comment and document exchange was facilitated by an electronic forum established by the United Kingdom. The United Kingdom is grateful to the United States of America for helping prepare the initial draft of this document. This document reflects the input and views of the following countries and organisations: Argentina, Armenia, Austria, Australia, Belgium, Brazil, Bulgaria, Canada, Cyprus, Czech Republic, Denmark, Estonia, European Commission, Finland, France, Germany, Greece, Guatemala, Hungary, Iceland, Ireland, Italy, Japan, Republic of Korea, Latvia, Libya, Lithuania, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, United Kingdom, United States of America and Uruguay.

HONEY BEE TREATMENTS

3. National Authorities have provided detailed information on authorised treatments for bees producing honey in their jurisdiction. A small number of countries responded that they had no authorised treatments for honey producing bees. A detailed list of the treatments authorised is given in the attached Annex 1.

4. There is a limited number of active ingredients used in the data received and the number of times an active ingredient has been recorded is given in Table 1. This shows that there is a short list of commonly authorised active ingredients, with thymol being the most common. It must be noted that Table 1 takes no account of the toxicity which may be associated with the active ingredients.

HONEY CONSUMPTION

5. When considering honey intake for MRL setting, the JECFA standard diet assumes a consumption of 20g per person per day. The consumption figure was reconsidered at the 70th JECFA meeting and it was concluded that a revised consumption value of 50g per person per day would be appropriate but further information on honey consumption around the world was needed.

6. Information was requested on both direct and indirect honey consumption held by national authorities so that the electronic working group could comment on the suitability of the JECFA proposal. The

consumption data provided by national authorities is given in Annex 2. Little detailed information is available in most countries but the data submitted by Australia, Austria and the Netherlands is in line with data from the United Kingdom and Germany considered at the 70th JECFA meeting. The new data would tend to support the view that the JECFA proposal is sound.

GOOD VETERINARY PRACTICE IN HONEY PRODUCTION

7. Information on Good Veterinary Practice in honey production was requested from National Authorities so that the electronic working group could prepare a review of existing guidelines. Many National Authorities provided comprehensive guidelines on bee husbandry and honey production.

8. The existing guidelines from National Authorities offer information on all aspects of honey production including use of veterinary drugs. Based on the guidelines received by the electronic working group, recommendations from National Authorities are similar with respect to the use of veterinary drugs in bee husbandry and honey production.

9. Most National Authority guidelines recommend that veterinary drugs should be used only to treat disease and should not be used on a preventative basis. For prevention of disease, most guidelines recommend proper feeding of bees, maintenance of hives, and regular health checks of hives.

10. To prevent unsafe residues of veterinary drugs in honey products, most National Authority guidelines recommend using only veterinary drugs that have been authorized for use in bees. The existing guidelines also emphasize the importance of following the labelled instructions. Veterinary drugs are not recommended for use during honey product harvesting. If veterinary drugs must be used during this time, honey products should not be harvested for human consumption.

11. The existing guidelines may serve as a basis for a Codex guideline on Good Veterinary Practice in honey production. Such a guideline could provide harmonized guidance that would ensure the safety of honey products and enable fair trade practices.

RECOMMENDATIONS

- Data collected on active ingredients used in honey bee treatments should be prioritised for further consideration and proposing MRLs in honey.
- Further data should be requested from National Authorities on detailed honey consumption to permit further consideration of the increased daily consumption proposed by JECFA. In the absence of further data, the limited available data support the JECFA proposal.
- The existing good veterinary practice guidelines submitted to this electronic working group should be further considered to prepare a guidance document which would satisfy the needs of the international community to protect trade in honey, bee health and consumers.
- Work on the recommendations above should continue in the way considered most appropriate by the committee, e.g. by forming an electronic working group.

Table 1: Active ingredients in treatments authorised for honey producing bees and the number of products in which they are authorised

Active Ingredient	No. of Products
Thymol	51
Oxytetracycline	30
Fluvalinate	26
Flumethrin	25
Amitraz	21
Coumaphos	22
Fumagillin	20
Orthohydroxy benzoic acid sodium salt	13
Oxalic Acid	13
Formic Acid	12
Menthol Oil	7
Camphor	6
Eucalyptus Oil	4
Lactic Acid	3
Citric Acid	3
Cymiazole Hydrochloride	3
Acrinathrin	2
Aluminium Phosphide	2
Bac. Thuringiensis	2
Bromopropylate	1
Sorbic acid	1
Acetic Acid	1
Diatomaceous Earth	1
Etheric Oils	1
Magnesium Phosphide	1
Metronidazole	1
Mirosamycin	1
Para-dichlorobenzene	1
Polysorbate ethanol	1
Propolis Extract	1
Sodium Carbonate decahydrate	1
Sodium hydroxide	1
Sulfadimethoxine	1
Sulfur	1
Trimethoprim	1
Tylosin tartrate	1
Vitamins	1
Teradifon	1
Thimerosal	1

ANNEX 1: AUTHORISED BEE TREATMENTS BY COUNTRY**A) LIST OF COUNTRIES WITH NO AUTHORISED BEE TREATMENTS**

Brazil

Finland

Iceland

Norway

Sweden

B) LIST OF AUTHORISED HONEY TREATMENTS BY COUNTRY**Argentina**

Product	Number	Authorisation Holder	Active Substance	Indication	VMP or Biocide
Amivar	03-257	Apilab S.R.L.	Amitraz 6.25g% tira	Varroasis/Acariosis	VMP
Cumavar	04-299	Apilab S.R.L.	Coumaphos 680mg/tira	Varroasis/Acariosis	VMP
Flumevar	08-030	Apilab S.R.L.	Flumethrin 36mg/tira	Varroasis/Acariosis	VMP
Bayvarol	97.169	Bayer Argentina S.A.	Flumethrin 0.06% tira	Varroasis/Acariosis	VMP
Beevar Proapi	99-246	E.E.A.INTA-Balcarce	Formic Acid 70g%	Varroasis/Acariosis	VMP
Oxavar	01-181	E.E.A.INTA-Balcarce	Oxalic Acid 97%	Varroasis/Acariosis	VMP
Natural Var	05-280	E.E.A.INTA-Balcarce	Thymol 8.03g/tira	Varroasis/Acariosis	VMP
Varrotraz	08-215	Lab Snaiwer de Maximiliano	Amitraz 7.14g%	Varroasis/Acariosis	VMP
Colmesan ahumado	88.143	Laboratorios Lavet SRL	Amitraz 1.25g%	Varroasis/Acariosis	VMP
Colmesan solucion	84.124	Laboratorios Lavet SRL	Amitraz 2.05g%	Varroasis/Acariosis	VMP
Colmesan tiras de liberacion lenta	92.395	Laboratorios Lavet SRL	Amitraz 0.84g%	Varroasis/Acariosis	VMP
AB Var A	06-036	Luciano Modesto Baldan	Amitraz 400mg/ pastille	Varroasis/Acariosis	VMP
AB Var C	06-399	Luciano Modesto Baldan	Coumaphos 400mg/ pastille	Varroasis/Acariosis	VMP

Product	Number	Authorisation Holder	Active Substance	Indication	VMP or Biocide
AB Var Doble	06-397	Luciano Modesto Baldan	Coumaphos 400mg Oxytetracycline 700mg Pastilla	Varroasis/Acariosis	VMP
AB Var Bio	06-035	Luciano Modesto Baldan	Thymol 13g Pastilla	Varroasis/Acariosis	VMP
Fugiprim	97-117	Francisco Jose Tejerina	Fumagillin 2.04%	Nosemiosis	VMP
Nosemix B fumagillina	02-137	Solemar S.A	Fumagillin 2%	Nosemiosis	VMP
Tetravet	87.030	Laboratorios Lavet SRL	Oxytetracycline 6g%	LOQUE	VMP
TetraLoque forte	93.149	Laboratorios Lavet SRL	Oxytetracycline 10g% & vitamins	LOQUE	VMP
Oxitetraciclina polvo soluble	95.000	Holiday Scott SAICAI	Oxytetracycline 5.5g%	LOQUE	VMP
Oxi biotic oral Del Rosario	89.521	Lab del Rosario S.R.L.	Oxytetracycline 5.5g%	LOQUE	VMP
Terramicina polvo soluble	76.533	Pfizer S.R.L.	Oxytetracycline 5.5g%	LOQUE	VMP
Oxicilin polvo soluble	92.509	Romage S.A	Oxytetracycline 5.5g%	LOQUE	VMP
Antibiotico de amphio espectro	92.277	El Gigante	Oxytetracycline 6g %	LOQUE	VMP
AB Loque	05-275	Luciano Modesto Baldan	Oxytetracycline 700mg pastilla	LOQUE	VMP
Colmesan PH plus	01-081	Laboratorios Lavet SRL	Sulfadimethoxine 5g% Trimethoprim 1g% Oxytetracycline hydrochloride 1g% Vitamins	LOQUE	VMP

Armenia

Product	Number	Authorisation Holder	Active Substance	Indication	VMP or Biocide
Bipinum		Api-San/ Moscow	Amitraz	Water emulsion against <i>Varroa jacobsoni</i>	Biocide
Nozemat		Api-San/Moscow	Metronidazole Oxytetracycline hydrochloride	Water&sugar solution against <i>Nosema apis</i> and obligatory anaerobe	VMP
Oxybactocyd		Agrobioprom CJSC	Oxytetracycline hydrochloride	Water& sugar solution against American and European foulbrood of honey bees and other bacterial infections	VMP

Austria

Product	Number	Authorisation Holder	Active Substance	Indication	VMP or Biocide
Perizin 32/mg/ml	8-00001	Bayer Austria GmbH	Coumaphos	Diagnosis and control of varroasis in honey bees	VMP
Apistan	8-00114	Vita (Europe) Ltd	Fluvalinate	For the diagnosis and control of <i>Varroa jacobsoni</i> in honey bees	VMP
Apitol	8-00115	Vita (Europe) Limited	Cymiazole hydrochloride	For the diagnosis and control of <i>Varroa jacobsoni</i> in honey bees	VMP NB Licence suspended
Apiguard	8-00548	Vita (Europe) Limited	Thymol	For the treatment of varroasis due to <i>Varroa destructor</i> in honey bees.	VMP

Australia

Product	Number	Authorisation Holder	Active Substance	Indication	VMP or Biocide
Tetravet 100 soluble antibiotic powder	35988 (not W Australia)	Bormac Laboratories Ltd (NZ)	Oxytetracycline hydrochloride	For the treatment of European Foulbrood (<i>Melissococcus pluton</i>)	VMP
Broodmix – for the treatment of European Brood Disease (<i>Melissococcus pluton</i>)	41005 (Not W Australia)	Specialised bee medications	Oxytetracycline hydrochloride	For the treatment of European Foulbrood (<i>Melissococcus pluton</i>)	VMP
Tetracin 10 soluble powder	41943	Agricon Pty LtdT/A Agricon Products	Oxytetracycline hydrochloride	For the treatment of European Foulbrood (<i>Melissococcus pluton</i>)	VMP
Tetracin 100 soluble powder	42339	Agricon Pty LtdT/A Agricon Products	Oxytetracycline hydrochloride	For the treatment of European Foulbrood (<i>Melissococcus pluton</i>)	VMP
Phostoxin round fumigation tablets	32066	Detia Degesch GMBH	Aluminium phosphide	For the fumigation of beehives	Biocide
Fumitoxin coated insecticide tablets	32069	Pestcon Systems inc	Aluminium phosphide	For the fumigation of beehives	Biocide
Degesch insecticide fumigation plate	32111	Detia Degesch GMBH	Magnesium phosphide	For the fumigation of beehives	Biocide
Permaguard D-10 insecticide and absorbicide sorptive dust insecticide	Per 10277		Diatomaceous earth	For the control of small hive beetle	
Apiguard	Per 10862	Vita (Europe) Pty Ltd	Thymol	Diagnosis of varroa mite.	Biocide
Fumagillin B	Per 11006	Medivet Pharmaceuticals	Bicyclohexylammonium Fumagillin	Antibacterial for use against <i>Nosema apis</i>	
Bayvarol Strips	Per 9730	Bayer	Flumethrin	For use in sentinel hives	Biocide

Belgium

Product	Number	Authorisation Holder	Active Substance	Indication	VMP or Biocide
Perizin	9167/B	Bayer	Coumaphos	Against varroasis	Biocide -- valid till 15/03/2010l
Thymovar	3602IE1F20	Andermatt BIOCONTROL GmbH	Thymol	Treatment of varroosis on honey bees (<i>Apis mellifera</i>) due to varroa mite (<i>Varroa destructor</i>).	VMP

Bulgaria

Product	Number	Authorisation Holder	Active Substance	Indication	VMP or Biocide
Perizin	1064 27.11. 2008	Bayer Animal Health GmbH	Coumaphos 32.0mg/ml	Varroasis	VMP
Ecostop lamellae	476 09.03.2006	Primavet Sofia OOD	Ol Menthae, Piperithae Thymolum insert in PE/AL PE folio	Varroasis	VMP
Check-mite plus	768 11.06.2007	KVP Pharma und Vetinar Produkte GmbH Bayer Healthcare AG	Coumaphos 13.6/strip	Varroasis	VMP
Apiguard Gel	618 24.07.2006	Laleham Healthcare Ltd	Thymol 12.5g/50.0g	Varroasis	VMP
Bayvarol Strips	845 20.09.2007	Bayer Healthcare AG	Flumethrin 3.6mg strip	Varroasis	VMP
Varostop strips	954 19.06.2006	Primavet Sofia OOD	Flumethrin 3.6mg strip	Varroasis	VMP
Varotom	1009 07.08.2008	Evrotom DOO -Serbia	Tau-Fluvinat 80mg strip	Varroasis	VMP
Furmiton	1113 16.02.2009	Evrotom DOO -Serbia	Formic Acid	Varroasis Wax Moth <i>Braula caeca</i>	VMP

Canada

Product	Number	Authorisation Holder	Active Substance	Indication	VMP or Biocide
<i>Foul Brood Mix (not presently marketed)</i>	00650665	Medivet Pharmaceuticals Ltd	Oxytetracycline hydrochloride	Prevention and Treatment of Foulbrood	VMP
Oxysol 62.5	00560189	Vetoquinol N.A.Inc	Oxytetracycline hydrochloride	Treatment of Foulbrood	VMP
<i>Oxytet -25 (not presently marketed)r</i>	02231111	Medivet Pharmaceuticals Inc	Oxytetracycline hydrochloride	Prevention and treatment of Foulbrood	VMP
Medi-oxymycin 62.5	00766542	Medibiotics Inc	Oxytetracycline hydrochloride	Treatment of Foulbrood	VMP
Oxytet -25-S (N)	00571350	Medivet Pharmaceuticals Inc	Oxytetracycline hydrochloride	Prevention and treatment of Foulbrood	VMP
Oxytetracycline 62.5 (N)	02230278	LIOH Inc	Oxytetracycline hydrochloride	Treatment of Foulbrood	VMP
Terramycin Animal Formula	00498963	Pfizer Canada Inc	Oxytetracycline hydrochloride	Control and prevention of Foulbrood	VMP
<i>Fumagillin –B soluble powder N (not presently marketed)</i>	00659657	Medivet Pharmaceuticals Ltd	Fumagillin	Prevention of Nosema	VMP
Fumidil B Powder	00641421	Mid-Continet Agrimarketing	Bicyclohexylammonium Fumagillin	Prevention of Nosema	VMP
NOSEM-X	00529672	A.P.A. Division of Rhone Merieux Canada	Bicyclohexylammonium Fumagillin	Prevention of Nosema	VMP

Cyprus

Product	Number	Authorisation Holder	Active Substance	Indication	VMP or Biocide
Check-mite	CY001V-E	Bayer Animal Health	Coumaphos	Treatment of <i>Varroa destructor</i>	VMP
Apistan hive strip	CY084V-E	Vita (Europe) Limited	Fluvalinate	Treatment of Varroa	VMP

Czech Republic

Product	Number	Authorisation Holder	Active Substance	Indication	VMP or Biocide
Varidol		Bee Research Institute Ltd Maslovice-Dol 94252 66 Libcice n. Vlt	Amitraz	Varroosis – <i>Varroa destructor</i>	VMP
Gabon PF 90		Bee Research Institute Ltd Maslovice-Dol 94252 66 Libcice n. Vlt	Tau-Fluvalinate	Varroosis – <i>Varroa destructor</i>	VMP
Formidol		Bee Research Institute Ltd Maslovice-Dol 94252 66 Libcice n. Vlt	Formic Acid	Varroosis – <i>Varroa destructor</i>	VMP
Gabon PA 92		Bee Research Institute Ltd Maslovice-Dol 94252 66 Libcice n. Vlt	Acrinathrine	Clinical studies – <i>Varroa destructor</i>	VMP
XY		Bee Research Institute Ltd Maslovice-Dol 94252 66 Libcice n. Vlt	Thymol	Clinical studies – <i>Varroa destructor</i>	VMP

Denmark

Product	Number	Authorisation Holder	Active Substance	Indication	VMP or Biocide
Apiguard Vet	33998	Vita (Europe) Limited Hampshire GB	Thymol	Treatment of varroatosis caused by <i>Varroa destructor</i>	VMP

Estonia

Product	Number	Authorisation Holder	Active Substance	Indication	VMP or Biocide
Apiguard	1212	Vita (Europe) Limited	Thymol	For the treatment of varroosis due to <i>Varroa destructor</i> in honey bees	VMP
Apistan	1421	Vita (Europe) Limited	Fluvalinate	For the diagnosis and control of <i>Varroa jacobsoni</i> in honey bees	VMP
Bayvarol	1365	Bayer Animal Health GmbH	Flumethrin	For the diagnosis and control of <i>Varroa jacobsoni</i> in honey bees	VMP

France

Product	Number	Authorisation Holder	Active Substance	Indication	VMP or Biocide
Apiguard	677443 5	Vita (Europe) Limited	Thymol	Control of varroa due to <i>Varroa destructor</i>	VMP
Apistan	686488 8 686489 4 686490 2 686518 4	Vita (Europe) Limited	Fluvalinate	Bees acaricid	VMP
Api Life Var		Chemicals Laif	Thymol Eucalyptus oil Camphor Levomenthol	Treatment of varroosis caused by <i>Varroa destructor</i>	VMP
Apivar	673335 3	Veto Pharma	Amitraz	Varroa treatment	VMP
Thymovar	679850 7	Andermatt Biovet	Thymol	Control of varroa due to <i>Varroa destructor</i>	VMP

Germany

Product name	National registration no. (if available)	Pharmaceutical company producing the product	Active substance	Indication	VMP or Biocide
Apiguard	400616.00.00	Vita (Europe) Ltd.	Thymol	Treatment of varroatosis	VMP
Bayvarol	26288.00.00	Bayer Vital GmbH	Flumethrin	Treatment of varroatosis	VMP
Perizin	6833.00.00	Bayer Vital GmbH	Coumafos	For diagnosis & therapy of varroatosis	VMP
Thymovar 15 g	400966.00.00	Andermatt BioVet GmbH	Thymol	Treatment of varroatosis	VMP
API LIFE VAR	401267.00.00	Chemicals Laif S.R.L.	Thymol, Eucalyptus oil, Camphor (racemic), Levomenthol	Treatment of varroatosis	VMP
Oxalsäure-Lösung 3.5 % (m/V) ad us. Vet	2669.99.99	Alte Apotheke Johannes Hermes	Oxalic acid	Treatment of varroatosis	VMP
Oxalsäuredihydrat-Lösung 3.5 % (m/V) ad us. vet.	2669.99.99	Kreuz Apotheke Peter Schwegler	Oxalic acid	Treatment of varroatosis	VMP
OXUVAR	2669.99.99	Andermatt BioVet GmbH	Oxalic acid	Treatment of varroatosis	VMP
Oxalsäuredihydrat-Lösung 3,5 % (m/V) ad us. vet.	2669.99.99	Kronen-Apotheke Lutz Hünermund e.K.	Oxalic acid	Treatment of varroatosis	VMP
Oxalsäuredihydrat-Lösung 3,5 % (m/V) ad us. vet.	2669.99.99	Serumwerk Bernburg AG	Oxalic acid	Treatment of varroatosis	VMP
Ameisensäure 60% ad us.vet.	2469.99.99	Serumwerk Bernburg AG	Formic acid	Treatment of varroatosis	VMP
Varroacid 60	2469.99.99	Wirtschaftsgenossenschaft Deutscher Tierärzte eG	Formic acid	Treatment of varroatosis	VMP
Milchsäure 15% ad us. vet.	2569.99.99	Serumwerk Bernburg AG	Lactic acid	Treatment of varroatosis	VMP

Guatemala

Product	Number	Authorisation Holder	Active Substance	Indication	VMP or Biocide
Bayvarol	2011175048	Bayer	Flumethrin	Abejas/Varroa	VMP
Apistan	1502184580	Novartis	Tau-Fluvalinate	Abejas/Varroa	VMP

Greece

Product	Number	Authorisation Holder	Active Substance	Indication	VMP or Biocide
Perizin Solution	24351/1988	Bayer Germany	Coumaphos	Treatment of varroa	VMP
Apistan hive strip	40520/2004	Vita Europe UK	Fluvalinate	Treatment of varroa	VMP
Bayvarol hive strip	38274/1999	Bayer Germany	Flumethrin	Treatment of <i>Varroa jacobsoni</i>	VMP
Thymovar hive strip	61536/2008	Andermatt Biocontrol AG Switzerland	Thymol	Treatment of <i>Varroa destructor</i>	VMP
Apiguard gel	22971/2003	Vita Europe UK	Thymol	Treatment of <i>Varroa destructor</i>	VMP
Check-mite hive strip	16941/2006	Alapis S.A	Coumaphos	Treatment of <i>Varroa destructor</i>	VMP

Hungary

Product	Number	Authorisation Holder	Active Substance	Indication	VMP or Biocide
Apiguard gel	26/2003	Vita (Europe) Ltd	Thymol	Decrease of <i>Varroa jacobsoni</i> infestation in honey bee	VMP
Api Life Var	12/1998	Chemicals Laif S.r.l. Italy	Thymol	For the treatment and prevention of <i>Varroa jacobsoni</i> infestation in honey-bee	VMP
Bayvarol strip	430/1991	Bayer Hungaria Co	Flumethrin	For the treatment and diagnosis of <i>Varroa jacobsoni</i> infestation in honey-bee	VMP
Mahpatika internal solution	17/2001	Herbaria Joint Stock Company Hungary	Thymon 2.1g/100ml	For the treatment of ascospaeriosis and diminishing of <i>Varroa jacobsoni</i> infestation in honey bee	Biocide

Product	Number	Authorisation Holder	Active Substance	Indication	VMP or Biocide
Nonosz external solution	27/2004	Chemor Co Ltd Hungary	Ortho-hydroxy benzoic acid sodium salt 10g/100ml	For the treatment and prevention of nosemosis apium	Biocide
Perizin External Solution	825/1998		Coumaphos 32mg/m	For the treatment and diagnosis of <i>Varroa jacobsoni</i> infestation in honey-bee	VMP
Thymovar strip	2404/1/08	Andermatt Biocontrol AG Switzerland	Thymol 15g strip	For the treatment of <i>Varroa destructor</i> infestation in honey-bee	VMP

Ireland

Product	Number	Authorisation Holder	Active Substance	Indication	VMP or Biocide
Apiguard gel (25% thymol) for beehive use	10820//001/001	Vita (Europe) Limited	Thymol	Treatment of varroosis due to <i>Varroa destructor</i>	VMP
Bayer Flumethrin bee-hive strips 3.6mg	10021/050/001	Bayer Ltd	Flumethrin	For the diagnosis and control of flumethrin sensitive <i>Varroa jacobsoni</i> in honey bees	VMP

Italy

Product	Number	Authorisation Holder	Active Substance	Indication	VMP or Biocide
Api Life Var	103132	Chemicals Laif	Thymol	Treatment of varroosis on honey bees due to Varroa mite (<i>Varroa jacobsoni</i>)	VMP
Apivar	102481	Laboratories Biove	Amitraz	Treatment of varroosis on honey bees due to Varroa mite.	VMP
Apistan	103222	Vita Europe Ltd	Fluvalinate	Treatment of varroosis on honey bees due to Varroa mite.	VMP
Apiguard	103567	Vita Europe Ltd	Thymol	Treatment of varroosis on honey bees due to Varroa mite	VMP
Perizin	103084	Bayer S.P.A	Coumaphos	Treatment of varroosis on honey bees due to Varroa mite.	VMP

Japan

Product	Number	Authorisation Holder	Active Substance	Indication	VMP or Biocide
Apivar		Arysta LifeScience	Amitraz	Control of <i>Varroa destructor</i>	VMP
Nichino Apistan		Nihon Nohyaku Co Ltd	Fluvalinate	Control of <i>Varroa destructor</i>	VMP
Apiten for honey bee		Kawasaki Seiyaku K.K	Mirosamycin	Prevention of American foulbrood caused by <i>Paenibacillus larvae</i>	VMP

Republic of Korea

Product	Number	Authorisation Holder	Active Substance	Indication	VMP or Biocide
Eungemeul	003-108	Daehan New Pharm	Formic acid	Treatment of <i>Varroa jacobsoni</i> and <i>Tropilaelaps clareae</i>	VMP
Varocut smoking paper	004-043	Shinil Biogen	Amitraz	Treatment of Bee mites	VMP
Varokil	006-080	Kbnp	Cymiazole Hydrchloride	Treatment of <i>Varroa jacobsoni oudemans</i>	VMP
Varokil-P	006-080	Kbnp	Cymiazole Hydrchloride	Treatment of <i>Varroa jacobsoni oudemans</i>	VMP
Perizin-liquid	008-238	Bayer Korea	Coumafos	Treatment of <i>Varroa destructor</i>	VMP
Perizin	021-031	Bayer Korea	Coumafos	Treatment of <i>Varroa destructor</i>	VMP
Daesung P2	011-192	Daesung Microbiological Labs	Fluvalinate	Treatment of <i>Tropilaelaps clareae</i>	VMP
Sindeungjen	014-018	Sungwonvet	Teradifon	Treatment of Acariosis	VMP
G. C fumagilin	015-248	Green Cross Veterinary Products	Fumagillin	Treatment of Nosemiosis	VMP
Choongang -p2	021-120	Choongang Biotech	Fluvalinate	Treatment of <i>Tropilaelaps clareae</i>	VMP
Hando-P2	025-165	Handongvet	Fluvalinate	Treatment of <i>Tropilaelaps clareae</i>	VMP
Neotetra	037-042	Ubtech	Oxytetracycline HCl	Treatment of Gram- and Gram+	VMP
Fumagil-bee	037-094	Ubtech	Fumagillin	Treatment of Nosemiosis	VMP

Product	Number	Authorisation Holder	Active Substance	Indication	VMP or Biocide
Kugejal	060-002	Vixxol	Thimerosal +Citric acid	Treatment of Nosemiosis	VMP
Mehpatika	167-001	Wissen	Thymol	Treatment of Chalk brood and Varroasis	VMP
Mite-K	167-002	Wissen	Formic acid	Treatment of Varroa <i>jacobsoni</i> and <i>Tropilaelaps clarae</i>	VMP
Bienenwohl	167-003	Wissen	Citric acid	Treatment of Varroasis and Acariosis	VMP
Nosesid	167-004	Wissen	Sodium salicylate (same as orthohydroxy benzoic acid salt)	Treatment of Nosemiosis	VMP
Folbex-va	004-001	Hanpoong Industry	Bromopropylate	Treatment of Varroasis and Acariosis	VMP
Fumidil B	014-037	Kbnp	Fumagillin	Treatment of Nosemiosis	VMP
Apiguard	014-055	Kbnp	Thymol	Treatment of Varroasis and Acariosis	VMP
Bayvarol strips for honeybees	021-005	Bayer Korea	Flumethrin	Treatment of Varroa <i>jacobsoni</i>	VMP
Weipeng manpu gold	040-007	Daesung Microbiological Labs	Fluvalinate	Treatment of Varroasis and Acariosis	VMP
Fumalin	283-006	Jjcare	Fumagillin	Treatment of Nosemiosis	VMP
N bee	284-001	Duany	Fluvalinate	Treatment of Varroasis and Acariosis	VMP
Wangs manpulik	290-001	Wissen	Fluvalinate	Treatment of Varroasis and Acariosis	VMP
Thymovar	290-002	Wissen	Thymol	Treatment of Varroasis	VMP
Nonos	295-003	Wissen	Sodium salicylate (same as orthohydroxy benzoic acid salt)	Treatment of Nosemiosis	VMP

Latvia

Product	Number	Authorisation Holder	Active Substance	Indication	VMP or Biocide
Apistan	NRP/VFP-00252-06	Vita (Europe) Ltd Great Britain	Tau Fluvalinate	For the control of varroosis caused by <i>Varroa jacobsoni</i> Oud on bees.	VMP
Bayvarol strip	V/NRP/93/2004	Bayer Healthcare AG Germany	Flumethrin	For the treatment and diagnosis of varroatosis caused by <i>Varroa jacobsoni</i> on bees	VMP
Apiguard	V/NRP/03/1594	Vita (Europe) Ltd Great Britain	Thymol	For the treatment of varroatosis caused by <i>Varroa destructor</i> .	VMP

Libya

Product	Number	Authorisation Holder	Active Substance	Indication	VMP or Biocide
Apiguard		Vita Europe	Thymol	Control of mite infestation	VMP
Apistan		Vita Europe	Fluvalinate	Control of mite infestation	VMP
Para dex		More than 1 company	Para-dichlorobenzene	Control of moths and moulds	VMP
Bayvarol		Bayer Animal Health	Flumethrin	Control of mite infestation	VMP
Fomic acid			Formic Acid	Control of mite infestation	VMP
Fumidil B		Sanofi-Ceva	Fumigillin	Prevention and treatment of nosema	VMP
Api-life VAR		CHEMICALS LAIF	Thymol, Eucalyptus oil, L-Menthol, camphor		VMP
Generic various		More than 1 company	Oxytetracycline	Antimicrobial Agent	VMP

Lithuania

Product	Number	Authorisation Holder	Active Substance	Indication	VMP or Biocide
Bayvarol avilio juosteles	LT/2/93/0050/001	Bayer Animal Health GmbH Germany	Flumethrin	For the diagnosis and treatment of varroosis	VMP
Apiguard 50g gelis	LT/2/04/1641/001	Vita (Europe) Ltd United Kingdom	Thymol	Treatment of varroosis (<i>Varroa destructor</i>).	VMP
Apistan avilio juosteles	LT/2/98/0691/001	Vita (Europe) Ltd United Kingdom	Tau-fluvalinate	Destruction of <i>Varroa destructor</i> mites	VMP
Gabon PA92 avilio juosteles	RVB 2005/0024/2	Bee Research Institute Ltd Maslovice-Dol 94252 66 Libcice n. Vlt	Acrinathrin	Control of varroosis (<i>Varroa destructor</i>)	Biocide type 18

Malta

Product	Number	Authorisation Holder	Active Substance	Indication	VMP or Biocide
Bayvarol strips	Vm00010/4090	Bayer plc Animal Health Division	Flumethrin	For the diagnosis and control of flumethrin sensitive <i>Varroa jacobsoni</i> in honeybees.	VMP

Netherlands

Product	Number	Authorisation Holder	Active Substance	Indication	VMP or Biocide
Apistan	REG NL 9309 (National registration)	Vita (Europe) Limited	Tau Fluvalinate	Treatment of varroosis on honey bees (<i>Apis mellifera</i>) due to Varroa mite (<i>Varroa jacobsoni</i>)	VMP
Apiguard	REG NL 10038 FR/V/0132/001/MR	Vita (Europe) Limited	Thymol	Treatment of varroosis on honey bees) due to varroa mite (<i>Varroa destructor</i> .)	VMP

Product	Number	Authorisation Holder	Active Substance	Indication	VMP or Biocide
Thymovar	REG NL 10330 NL/V/0120/001/MR	Andermatt Biovet GmbH	Thymol	Treatment of varroosis on honey bees (<i>Apis mellifera</i>) due to Varroa mite (<i>Varroa destructor</i>)	VMP

Poland

Product	Number	Authorisation Holder	Active Substance	Indication	VMP or Biocide
Bayvarol strip	P221/96	Bayer Healthcare AG Germany	Flumethrin	Detection and acarid control – <i>Varroa destructor</i> (<i>Varroa jacobsoni</i>)	VMP
Apiworol	P740/99	Biowet Pulawy Sp z.o.o.	Amitraz	Detection and acarid control – <i>Varroa destructor</i> (<i>Varroa jacobsoni</i>)	VMP
Api Life Var	1489/04	Chemicals Laif	Thymol, Eucalyptus, Camphor, Menthol	Acariosis controlling <i>Varroa destructor</i> and <i>Acarapis woodi</i> Rennie)	VMP
Biowar	1521/04 – currently not renewed –in appeal procedure	Biowet Pulawy SP z o o	Amitraz	Acariosis controlling (<i>Varroa destructor</i>)	VMP

Portugal

Product	Number	Authorisation Holder	Active Substance	Indication	VMP or Biocide
Thymovar	083/01/08RFVPT	Andermatt Biovet GmbH	Thymol	Varroa Treatment	VMP
Apiguard	11/2004/DGV	Hifarmax Lda	Thymol	For the control of varroa in colonies of honey bees	VMP
Apistan	25/8 DGP	Hifarmax Lda	Fluvalinate	Bees acaricide	VMP
Apivar	41/96 DGV	Iberil SA	Amitraz	Ectoparasiticide against Varroa	VMP
Bayvarol	4/2006/DGV	Bayer SA	Flumethrin	Diagnosis and elimination of Varroa	VMP
Perizin	28/88/DGP	Bayer	Coumaphos	Bees acaricide	VMP

Romania

Product	Number	Authorisation Holder	Active Substance	Indication	VMP or Biocide
Varatraz	070287 31.08.2007	Pasteur –Filiala Filipesti	Amitraz	For the treatment of varroa (caused by <i>Varroa destructor</i>)	VMP
Perizin	060026 25.01.2006	Bayer Healthcare AG	Coumaphos	For the diagnosis and control of <i>Varroa jacobsoni</i> and <i>Braula coaca</i>	VMP
Bayvarol strip	060027 25.01.2006	Bayer Healthcare AG	Flumethrin	For the diagnosis and therapy of <i>Varroa jacobsoni</i> in honeybees	VMP
Beevital Hiveclean	060233 26.04.2006	Food & Beverage Handelsgesellschaft	Citric acid, Oxalic Acid, Propolis extract, div Etheric oils	For the treatment of varroa	VMP
Varachet Forte	070321 12.10.2007	Institutul de Cercetare Dezvoltare Pentru Apicultura SA	Amitraz Tau-Fluvalinate	For the treatment of varroa caused by <i>Varroa destructor</i>	VMP
Mavirol	070320 10.10.2007	Institutul de Cercetare Dezvoltare Pentru Apicultura SA	Tau-Fluvalinate	For the treatment of <i>Varroa destructor</i> and <i>Braula coeca</i> in honeybees	VMP
Mehpatike	060728 06.11.2006	Chemor Research	Thymol, sorbic acid	Reducing the infection caused by the Varroa larvae (<i>Varroa destructor</i>)	VMP
Checkmite+	060811 18.12.2006	Bayer Healthcare AG	Coumaphos	For the treatment of varroa (caused by <i>Varroa destructor</i>)	VMP
Apiguard	080013 03.04.2008	Vita (Europe) Ltd	Thymol	For the treatment of varroa (caused by <i>Varroa destructor</i>)	VMP
Thymovar	080057 29.07.2008	Andermatt Biovet GmbH	Thymol	For the treatment of varroa (caused by <i>Varroa destructor</i>)	VMP

Slovakia

Product	Number	Authorisation Holder	Active Substance	Indication	VMP or Biocide
Bavarol Strips	96/0171/194-S	Bayer s.r.o. Czech Republic	Flumethrin	Diagnosis and treatment of varroasis	VMP
Varidol Fum	96/0047/95-S	Vyskumny ustav vcelarsky	Amitraz	Treatment of varroasis on honey bees (<i>Apis mellifera</i>) due to varroa mite (<i>Varroa destructor</i>)	VMP
Varidol AER	072/R/04-S	Vyskumny ustav vcelarsky	Amitraz	Treatment on colony of bees against <i>Varroa destructor</i> (adult bees)	VMP
Formidol dosticky	001/R//04S	Vyskumny ustav vcelarsky	Formic Acid	Prevention for decrease of summer and after summer population of <i>Varroa destructor</i> , <i>Nosema apis</i> , <i>Ascospaera apis</i>	VMP
Gabon PF 90	012/R/06/S	Vyskumny ustav vcelarsky	Tau-flavalinate	Protection of winter generation of bees on Spring and Autumn with intensive varroasis	VMP
Mehpatika Solution	022/R/05-S	Biopharm-Martinek Slovak re	Thymol	Prevention of the chalk brood disease of honey bees (<i>Apis mellifera</i>), the treatment of the already installed disease, the diminishing of the infection of the external parasite <i>Varroa destructor</i>	VMP
Nonosz solution	021/R05	Biopharm-Martinek Slovak Republic	Ortho-hydroxy-benzoic acid sodium salt	Preventing the Nosemosis (<i>Nosemis apium</i>) at honey bees (<i>Apis mellifera</i>) and curing the already developed illness.	VMP
Oxypharm plv sol	96/0593/96-S	Pharmagel s.r.o. Slovak Republic	Oxytetracycline hydrochloride	European Foulbrood of Honeybee Larvae (treatment-protection) application to the winter feed for bees) (Not only for bees)	VMP

Slovenia

Product	Number	Authorisation Holder	Active Substance	Indication	VMP or Biocide
Bayvarol dvojni trak	5363-710/2004	Bayer d.o.o.	Flumethrin	Diagnosis and treatment of varroosis	VMP
Apiguard gel	5363-376/2004	IRIS mednarodna trgovina	Thymol	Treatment of varroosis (<i>Varroa destructor</i>)	VMP
Perizin raztopina	5363-711/2004	Bayer d.o.o.	Coumaphos	Diagnosis and treatment of varroosis	VMP

Spain

Product	Number	Authorisation Holder	Active Substance	Indication	VMP or Biocide
Apistan	8998	Vita (Europe)	Fluvalinate	The product is indicated for the demonstration (diagnosis) and control (therapy) of <i>Varroa jacobsoni</i> in honey bees	VMP
Apivar	1283 ESP	Veto Pharma	Amitraz	For the treatment of <i>Varroa jacobsoni</i> infestation in honey bee	VMP
Apiguard	1487 ESP	Vita (Europe)	Thymol	For the treatment of varroosis due to <i>Varroa destructor</i> in the honey bee	VMP
Bayvarol 3.6mg Tiras Para Colmenas MR Procedure (RMS UK)	1713 ESP	Quimica Farmaceutica Bayer	Flumethrin	The product is indicated for the demonstration (diagnosis) and control (therapy) of flumethrin sensitive <i>Varroa jacobsoni</i> in honey bees	VMP
Ecoxal	1749	CEVA Salud Animal S.A	Oxalic Acid	For the treatment of varroosis due to <i>Varroa destructor</i> in the honey bee	VMP
Thymovar MR Procedure (RMS NL)	1962 ESP	Andermatt Biovet GmbH	Thymol	Treatment of varroosis on honey bees (<i>Apis mellifera</i>) due to Varroa mite (<i>Varroa destructor</i>)	VMP

Switzerland

Product	Number	Authorisation Holder	Active Substance	Indication	VMP or Biocide
Formic acid aqueous solution	BRC		Formic acid	Short and long term treatment of varroa. Short and long term treatment of acarapis Wax moth control	
Apiguard	S & BRC	Apimedi GmbH	Thymol	Varroa control	VMP
Api Life Var	S & BRC	Chemicals Laif SRL	Thymol	Varroa control	VMP
Bayvarol	S	Bayer AG	Flumethrin	Varroa control	VMP
Checkmite	S	Bayer Healthcare	Coumaphos	Varroa control	VMP
Lactic acid aqueous solution	BRC		Lactic Acid	Varroa control	
Oxalic acid dihydrate	BRC		Oxalic acid	Varroa control	
Oxalic acid aqueous solution	BRC		Oxalic acid	Varroa control	
Oxalic acid sugar solution	BRC		Oxalic acid	Varroa control	
Oxuvar	S & BRC	Dr. Schaette AG	Oxalic acid	Varroa control	VMP
Perizin	S	Bayer AG	Coumaphos	Varroa control	VMP
Thymol crystalline	BRC		Thymol	Varroa control	
Thymovar	S & BRC	Andermatt BioVet AG	Thymol	Varroa control	VMP
Acetic acid aqueous solution	BRC		Acetic acid	Wax moth control	
Mellonex	BRC		<i>Bac. Thuringiensis</i>	Wax moth control	
Wax moth annihilator B401	BRC		<i>Bac. Thuringiensis</i>	Wax moth control	
Sulfur	BRC		Sulfur	Wax moth control	
Sulfur spray	BRC		Sulfur	Wax moth control	
Soda hot aqueous solution	BRC		Sodium carbonate decahydrate	Disinfection of brood diseases	

Product	Number	Authorisation Holder	Active Substance	Indication	VMP or Biocide
Sodium hydroxide aqueous solution	BRC		Sodium hydroxide	Disinfection of brood diseases	

United Kingdom

Product	Number	Authorisation Holder	Active Substance	Indication	VMP or Biocide
Apiguard Gel	17017/4002	Vita (Europe) Ltd	Thymol	For the treatment of varroosis due to <i>Varroa destructor</i> in honey bees	VMP
Apistan	17017/4000	Vita (Europe) Ltd	Tau Fluvalinate	To control varroastosis in honey bee colonies	VMP
Bayvarol strips 3.6mg	00010/4090	Bayer	Flumethrin	The product is indicated for the demonstration (diagnosis) and control (therapy) of <i>Varroa jacobsoni</i> in honey bees	VMP
Apilife Var Bee Hive strip for honey bees	23101/4000	Chemicals Laif	Thymol Menthol Levo Eucalyptus oil Camphor Racemic	Treatment of varroosis caused by <i>Varroa destructor</i>	VMP
Fumidil B powder for syrup 20mg/g	15052/4013	Ceva Animal Health Ltd	Fumagillin Fumagillin Biclohexylamine salt	For the control of Nosema in honey bees	VMP

United States of America

Product	Number	Authorisation Holder	Active Substance	Indication	VMP or Biocide
Terramycin Soluble powder	NADA 008-622 NADA 008-804 NADA 095-143 ANADA 138-938 ANADA 200-247	Pfizer Inc Phibro Animal Health Phibro Animal Health Pennfield Oil Co Teva Animal Health Inc	Oxytetracycline Hydrochloride	Control and treatment of American Foulbrood caused by <i>Paenibacillus larvae</i> and European Foulbrood caused by <i>Streptococcus pluton</i> susceptible to oxytetracycline	VMP
Fumadil B (not currently marketed)	NADA 009-252	Mid-continent Agrimarketing Inc	Bicyclohexylammonium Fumagillin	Drug is used for the prevention of nosema in honey bees	VMP
Tylan soluble	NADA 013-076	Elanco Animal Health A	Tylosin tartrate	Control of American Foulbrood (<i>Paenibacillus larvae</i>)	VMP

Uruguay

Product	Number	Authorisation Holder	Active Substance	Indication	VMP or Biocide
Sulminol	4666	Biolab	Oxytetracycline	Antibiotic	VMP
Ultrasan	1878	Dispert	Oxytetracycline hydrochloride	Antibiotic	VMP
Potencilin Polvo Soluble	3780	Sur	Oxytetracycline hydrochloride	Antibiotic	VMP
Terramicina Polvo Soluble	2620	Warner Lambert	Oxytetracycline hydrochloride	Antibiotic	VMP
Apistan	5258	Compania Cibeles	Fluvalinate	External antiparasitic (Varroa control)	VMP
Apiguard	A-4773	Compania Cibeles	Thymol	External antiparasitic (Varroa control)	VMP

Product	Number	Authorisation Holder	Active Substance	Indication	VMP or Biocide
				control)	
Amivar	A-3872	Abedil	Amitraz	External antiparasitic (Varroa control)	VMP
Oxavar	A-3875	Abedil	Oxalic Acid	External antiparasitic (Varroa control)	VMP
Cumavar	A-3939	Abedil	Coumaphos	External antiparasitic (Varroa control)	VMP
Fugiprim	A-4319	Abedil	Fumagillin	Internal antiparasitic (Nosema control)	VMP
Natural Var	A-4346	Adedil	Thymol, Eucalyptus oil Polysorbate Ethanol	External antiparasitic (Varroa control)	VMP
Flumevar	A-4585	Abedil	Flumethrin	External antiparasitic (Varroa control)	VMP
Apilife Var	A-2457	Nidera Uruguay	Thymol, Eucalyptus oil Menthol Camphor	External antiparasitic (Varroa control)	
Flumagilina DHC Nosemix B	A-182	Estab, Apicola Natura	Fumagillin	Nosema control	VMP

ANNEX 2: NATIONAL HONEY CONSUMPTION DATA

Argentina

200g per person/year

Australia

Honey consumption data

Estimated dietary intakes of honey were derived for Australian population groups aged:

- 2 years and above;
- 2-6 years; and
- 19 years and above.

The food consumption data used were from the 1995 Australian National Nutrition Survey (NNS) using the FSANZ DIAMOND program which include honey consumed alone and as an ingredient in mixed foods.

In DIAMOND, all mixed foods have a recipe and these recipes were used to break down mixed foods into their raw commodity components. For example, honey in a peanut and honey bar and honey based marinade for chicken are all included in the consumption of honey.

For consumers of honey the mean and the 90th percentile dietary intakes for each population group were as in Table 1.

Table1: Estimated daily dietary intake of honey for Australian population

Consumers* Age Group	No. of consumers*	Consumers* as a % of total respondents [#]	Consumers' mean body weight (kg)	Food Consumption Amount (grams/day)	
				Mean for consumers	90 th percentile consumers
2 years & above	2308	17	67	13	29
2-6 years	223	23	19	7	16
19 years & above	1693	16	74	14	31

[#] Total number of respondents for Australia: 2 years and above = 13,858; 2-6 years = 989; 19 years and above = 10,851. Respondents include all members of the survey population whether or not they consumed honey.

* Consumers – This only includes the people who have consumed honey.

Reference Food Standards Australia New Zealand (2009), *Dietary Modelling of Nutritional Data (DIAMOND)*: database using *1995 National Nutrition Survey Confidentialised Unit Record File*

Austria**Daily honey consumption data**

HONEY		
	User	
	Median	95.Perz.
preschooler (3-6 years) n=151		
data are determined by weighing - period: 3 days		
reference-bodyweight 20 kg	7	14.7
women (19-65 years) n=1568		
24-h-Recall (g/d)		
reference-bodyweight 60 kg	20	59.1
men (19-65 years) n=1013		
24-h-Recall (g/d)		
reference-bodyweight 60 kg	20	60

Brazil

Detailed data for honey consumption in Brazil is not available. The data presented in the table below reflects Brazilian estimated per capita honey consumption (grams/person/year)

Brazilian honey consumption (2002-2007) – Data compiled by UAGRO/SEBRAE from honey export/import data (MDIC/SECEX), estimated honey production and Brazilian population (IBGE).

Year	2002	2003	2004	2005	2006	2007
Per capita consumption (g/year)	64,84	60,16	62,23	104,93	115,42	115,07

Bulgaria

Domestic consumption of 8,888 tonnes in 2008

Canada

Detailed data for honey consumption in Canada is not available; however, data on available honey in grams per person per year is included in the table below.

Year	1981	1986	1991	1996	2001	2004	2005	2006	2007	2008
	Honey available in grams per person									
A	1090	860	780	1030	900	910	990	930	950	900
B	770	610	550	730	640	650	700	660	680	640

Food available by commodity (A) and

Food available adjusted for losses by commodity (B)

– Sugars and syrups (Statistics Canada – Catalogue no. 21-020-X, Table #s 3-2 and 4-2)

^A Not adjusted for losses, such as waste and/or spoilage, in stores, households, private institutions or restaurants or losses during preparations

^B Experimental, use with caution. The data has been adjusted for retail, household, cooking and plate loss

European Community

Gross human apparent consumption honey (1000 tonnes)												
year	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
<i>eu27</i> European Union (27 countries)	:	:	:	:	:	:	:	:	:	:	:	:
<i>be</i> Belgium	:	7.000	7.000	6.000	6.000	6.000	7.000	5.240	:	:	:	:
<i>bg</i> Bulgaria	:	:	2.000	4.000	4.000	4.000	4.000	4.240	3.120	:	:	:
<i>cz</i> Czech Republic	:	:	:	:	5.000	:	:	:	:	:	:	:
<i>dk</i> Denmark	5.000	6.000	4.000	3.000	6.000	<u>S</u> 5.000	<u>S</u> 5.000	<u>S</u> :	:	:	:	:
<i>de</i> Germany (including ex-GDR from 1991)	87.000	87.000	88.000	91.000	100.000	88.000	97.000	90.000	90.000	92.700	84.300	:
<i>ee</i> Estonia	:	:	0.000	0.000	0.000	1.000	0.700	0.700	0.800	1.200	0.900	:
<i>ie</i> Ireland	1.000	1.000	1.000	1.000	2.000	2.000	2.000	2.000	2.000	:	:	:
<i>gr</i> Greece	17.000	17.000	16.000	14.000	16.000	17.000	17.000	18.000	18.100	19.100	:	:
<i>es</i> Spain	30.000	35.000	38.000	35.000	38.000	38.000	:	:	:	:	:	:
<i>fr</i> France	26.000	27.000	31.000	34.000	29.000	28.000	29.000	33.000	34.000	32.000	36.000	:
<i>it</i> Italy	18.900	19.900	20.900	19.900	18.000	13.000	14.000	23.000	25.000	:	:	:
<i>cy</i> Cyprus	:	:	:	:	:	:	:	:	:	:	:	:
<i>lv</i> Latvia	:	:	1.000	1.000	1.000	1.000	0.000	1.000	1.000	1.410	0.900	:
<i>lt</i> Lithuania	:	:	0.000	1.000	1.000	2.000	1.200	1.300	1.400	1.000	1.700	:
<i>lu</i> Luxembourg (Grand-Duché)	:	0.200	0.200	0.200	0.269	0.314	0.281	0.396	0.288	0.237	:	:
<i>hu</i> Hungary	:	:	5.000	5.000	3.000	4.000	4.300	4.300	1.800	1.800	:	:
<i>mt</i> Malta	:	:	0.100	0.100	0.100	0.000	0.000	0.000	0.000	0.000	:	:
<i>nl</i> Netherlands	6.000	7.000	7.000	7.000	<u>S</u> 7.000	<u>S</u> 8.000	:	6.000	8.000	7.000	7.000	:
<i>at</i> Austria	10.000	11.000	14.000	13.000	12.000	12.000	10.700	10.100	10.100	9.500	9.600	:
<i>pl</i> Poland	:	:	11.000	10.000	13.000	15.000	15.000	17.000	27.300	20.000	23.000	20.000
<i>pt</i> Portugal	4.000	5.000	5.000	5.000	5.000	8.000	8.000	6.000	6.000	8.000	:	:
<i>ro</i> Romania	:	:	3.000	6.000	7.000	8.100	6.400	11.300	11.400	8.000	12.100	:
<i>si</i> Slovenia (not available)	:	:	:	:	:	:	:	:	:	:	:	:
<i>sk</i> Slovakia	:	:	2.000	3.000	2.000	2.000	2.000	3.730	4.560	2.930	3.720	3.720
<i>fi</i> Finland	2.000	2.000	3.000	2.000	3.000	3.000	3.000	2.500	:	:	:	:
<i>se</i> Sweden	6.000	5.000	6.000	5.000	6.000	7.000	6.000	5.000	6.000	:	:	:
<i>uk</i> United Kingdom	23.000	27.000	25.000	25.000	32.000	24.000	30.000	29.400	32.100	:	:	:

SEurostat estimate

Germany**Adult consumption data¹:**

German consumption data for the adult population is based on the dietary history method of the National Nutrition Survey II (NVS II). The study was conducted in 2005/2006 with about 20.000 German speaking people aged 14 to 80 years by means of three different analytical methods (dietary history, 24h recall, weighing record). The computer supported dietary history (DISHES program) provides data of 15.371 respondents and their common consumption of the last four weeks (Max Rubner-Institute, 2008). Data recorded by dietary history method provide good estimates of long-term intake of substances when foods are summarised in broad categories or are consumed regularly.

Two analyses have been done. The first (Table 1) includes complete honey consumption (direct and indirect from recipes and composite foods) and the second analysis (Table 2) shows direct honey consumption only (honey spread, etc.).

Table 1: Indirect and direct honey consumption (basis: all respondents)

(sub-)sample	N	consumer (%)**	mean		percentile 95	
			g/kg bw/d*	g/d	g/kg bw/d*	g/d
total sample	15.371	88	0,05	3,9	0,28	20,1
men	7.613	91	0,05	4,1	0,27	20,4
women	7.758	86	0,06	3,8	0,30	20,0
14-18 years	1.058	86	0,03	2,1	0,18	11,1
19-24 years	1.286	88	0,04	2,6	0,21	16,8
25-34 years	2.201	88	0,05	3,4	0,25	19,4
35-50 years	4.737	89	0,05	3,7	0,26	20,0
51-64 years	3.169	89	0,06	4,5	0,31	21,0
65-80 years	2.921	89	0,07	5,4	0,35	25,7

* individual body weight (bw)

**consumer = percentage of individuals of the respective (sub-)sample who consumed the food

Table 2: Only direct honey consumption (basis: all respondents)

(sub-) sample	N	consumer (%)**	mean		percentile 95	
			g/kg bw/ d*	g/d	g/kg bw/d*	g/d
total sample	15.371	31	0,05	3,5	0,27	20,0
men	7.613	29	0,05	3,7	0,26	20,0
women	7.758	32	0,05	3,4	0,29	20,0
14-18 years	1.058	17	0,03	1,7	0,17	10,7
19-24 years	1.286	21	0,03	2,2	0,20	14,3
25-34 years	2.201	29	0,04	2,9	0,24	17,5
35-50 years	4.737	31	0,04	3,3	0,24	20,0
51-64 years	3.169	34	0,06	4,2	0,30	20,0
65-80 years	2.921	37	0,07	5,1	0,34	25,0

* individual body weight (bw)

**consumer=percentage of individuals of the respective (sub-)sample who consumed the food

¹ Max Rubner-Institute (Federal Research Centre for Nutrition and Food) 2008, National Nutrition Survey II (NVS II), Report 1/2

Consumption data for children²:

For children aged 6 month up to <5 years consumption data on honey are available (VELS-Study) already used in the authorisation and risk assessment of plant protection products. The VELS-study was conducted in view of a risk assessment including all sources of intake for each food items on a 24h basis. All foods were referred to their raw agricultural commodities using recipes. Therefore all consumption figures based on the VELS-Study already represent the total intake of honey arising from the intake as raw commodity and as ingredients to processed foods within 24h.

The age group 2-4 years is specifically mentioned, since this group was chosen for the current dietary intake model used in Germany for pesticide authorisation.

Consumption of honey for children aged 6 month up to <5 years based on the VELS-Study (general population approach)

Age group	Mean body weight in kg	Consumers / Total number of reported days	Honey consumption within 24h (g per day) ²					
			Mean	Median	P90	P95	P97.5	Max
6 months – 1 year	9.4	95 / 921	0.1	0	0.1	0.4	1.0	18.0
1 – <2 years	12.3	211 / 972	0.7	0	2.0	4.1	6.3	24.7
2 – <3 years	14.9	285 / 975	1.3	0	5.0	8.0	11.2	30.0
3 – <4 years	16.6	259 / 805	1.9	0	6.0	11.0	17.9	42.0
4 – <5 years	19.3	259 / 811	1.6	0	6.1	11.0	14.8	28.0
2 – <5 years ¹	16.15	1088 / 2591	1.6	0	6.0	10.0	14.0	42.0

1: age group used for German VELS-model

2: 2x3 days dietary record, general population, consumption figures represent consumption per day, not per person (no intra-individual variability taken into account)

For detailed discussion on earlier consumption data and analyses of data, please also see the JECFA monograph at:-

<ftp://ftp.fao.org/docrep/fao/011/i0659e/i0659e01.pdf>.

Japan

No direct consumption data available, only data on who eats honey

Direct honey consumption in Japan in 1998-2000

	Average consumption* (g/day/person)
Child (aged 1-6)	0.2
Pregnant woman	0.6
Aged person (aged 65-)	0.6
National average	0.4

* Figures include the data of non-eater

² Banasiak et al, Abschätzung der Aufnahme von Pflanzenschutzmittel-Rückständen in der Nahrung mit neuen Verzehrsmengen für Kinder, Bundesgesundheitsblatt - Gesundheitsforschung - Gesundheitsschutz 48 (2005) 84-98

Republic of Korea

Average honey consumption in Republic of Korea (2006~2008)

Year	Average honey consumption (g/person/day)
2008	1.57
2007	1.51
2006	1.29

Reference

Food balance sheet (2008), Korea Rural Economics Institute.

Libya

600g per person/year

Lithuania

No consumption data – production 190 tonnes (2008)

The Netherlands

The information below is taken from the chapter 'Dutch honey consumption' from the report "Honey in the Netherlands - a background document for risk assessment". The authors are Polly Boon and Marjolein Bonthuis, and the report is from Fischer, A., Noordam., M.Y., Boon, P., Bonthuis, M., and A.S. Bulder.

In general, about 450 g of honey is consumed per person per year in the Netherlands and only about 10% of this is produced in the Netherlands itself. The national annual honey consumption over the period 2005-2008 is given in Table 1 below.

Table 1. Average annual honey consumption in the Netherlands according to EuroStat (2009).

Year	Average honey consumption (x 1000 tonnes)
2005	6
2006	8
2007	7
2008	7

Table 2, lists the P95 of usual honey consumption (table honey and total honey [including table honey and honey as ingredient of other foods]) for the general Dutch population and for those persons in the survey consuming honey on at least one of the two survey days. This output shows that 95% of the Dutch population had a total honey consumption of at least 0.1 g/kg bw/d, and 5% had a higher intake. For those persons actually consuming honey (as both table honey and ingredient), the P95 of usual consumption was 7 times higher: 0.7 g/kg bw/d.

Table 2. Average and P95 of honey consumption of the Dutch population (aged 1-97 years) (g/kg bw/d).

Population	Table honey (g/kg bw/d)		Total honey ¹ (g/kg bw/d)	
	Mean	P95	Mean	P95
General Dutch population (n = 6,250)	0.01	0.03	0.02	0.1
Honey consumers ²	0.2	0.5	0.3	0.7

¹ Total honey includes table honey and honey as ingredient of foods.

² Honey consumers: respondents who consumed table honey on at least one of the two survey days (n = 324), or respondents who consumed table honey and honey as ingredient (= total honey) on at least one of the two survey days (n = 433).

The honey consumption amongst children aged 2 to 6 years in the Netherlands in 2005-2006 is shown in Table 3 below.

Table 3. Average and P95 of honey consumption of Dutch children aged 2 to 6 years (g/kg bw/d).

Population	Table honey (g/kg bw/d)		Total honey ¹ (g/kg bw/d)	
	Mean	P95	Mean	P95
Total population of children (n = 1,279)	0.01	0.00	0.02	1.1
Honey consumers ²	0.6	1.2	0.2	1.8

¹ Total honey includes table honey and honey as ingredient of foods.

² Honey consumers: respondents who consumed table honey on at least one of the two survey days (n = 47), respondents who consumed table honey and honey as ingredient on at least one of the two survey days (n = 183).

A further detailed survey of honey consumption is underway and the results are expected to be available in 2011.

Uruguay

250-700g per person/year

USA

1.29lb (585g) per person/year

United Kingdom

For detailed consumption data and analyses of data, please see the JECFA monograph at:-

<ftp://ftp.fao.org/docrep/fao/011/i0659e/i0659e01.pdf>.

ANNEX 3: EXISTING GUIDELINES ON GOOD VETERINARY PRACTICE IN HONEY PRODUCTION

Original Title	Translation	Country	Availability
Richtlinien zur Bekämpfung der Bienenkrankheiten	Directives to Combat Diseases	Switzerland	
Manual de Buenas Prácticas Apícolas para la Producción De Miel	Manual of Good Beekeeping Practices for Production of Honey	Guatemala	
Guía de Buenas Prácticas Apícolas y de Manufactura	Guide to Good Beekeeping Practices and Manufacturing	Argentina	
Leitlinie Für Eine Gute Hygienepraxis In Imkereibetrieben	Guidelines for Good Hygiene Practice in Beekeeping Firms	Austria	
Guía de Buenas Prácticas de Manejo de Miel	Guide to Good Management Practices in Honey	Uruguay	http://www.rlc.fao.org/es/agricultura/bpa/normtec/otros%20rubros/18.pdf
Healthy Bees Plan		United Kingdom	https://secure.fera.defra.gov.uk/beebase/downloadNews.cfm?id=50
Residues of Veterinary Drugs in Honey and Possible Approaches to Derive MRLs for this Commodity		70 th JECFA	ftp://ftp.fao.org/docrep/fao/011/i0659e/i0659e01.pdf
양봉 사양관리	Good Veterinary practice information of Beekeeping management	Republic of Korea	http://www.korapis.or.kr/sub03/sub03_01.php
Kodeks dobrej praktyki produkcyjnej w pszczelarstwie	Guide to Good Beekeeping Practices	Poland	
جودة العسل	Quality of honey	Libya	