

ISO TC34/SC19 Bee Products Secretariat

1. The Establishment of ISO TC 34/SC 19

Royal Jelly Standard (WG13)

2008 TC 34/WG 13 Royal Jelly

China, France, Japan,
Turkey, Italy, Germany



- Not unified terms & definitions
- Global ring test
- The starting of standardization system of bee products.

2016

ISO RJ Standard
Published and proposed
to establish new SC

2017

SC19 established,
Secretary appointed

n appointed,
vements.



TECHNICAL

RESOLUTION 109/2017

Adopted by correspondence on 2017-09-11
Establishment of a new Sub-committee on Bee
products in ISO/TC 34

The Technical Management Board,
Ratifies the decision of ISO/TC 34 to establish
a new SC on *Bee products*, and
Allocates the secretariat to SAC (China).

Participating Members (18)

Secretariat

China - Standardization Administration of China (SAC)

Argentina (IRAM)

Belgium (NBN)

China (SAC)

Côte d'Ivoire (CODINORM)

Egypt (EOS)

France (AFNOR)

Germany (DIN)

Ghana (GSA)

Hungary (MSZT)

Portugal (IPQ)

India (BIS)

Senegal (ASN)

Italy (UNI)

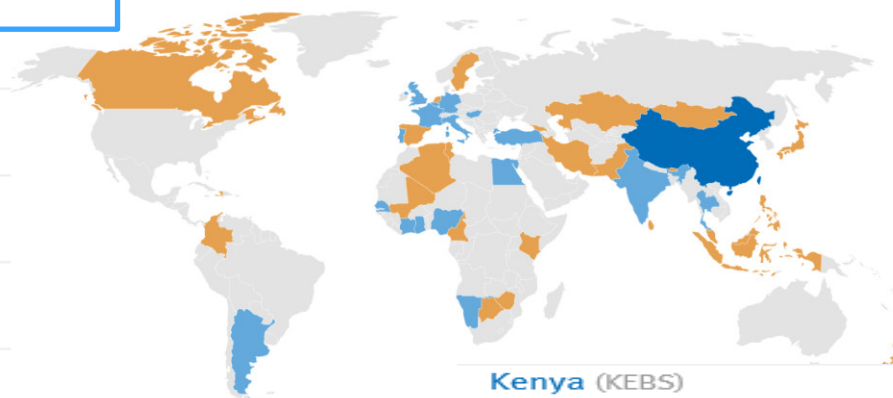
Thailand (TISI)

Namibia (NSI)

Turkey (TSE)

Nigeria (SON)

United Kingdom (BSI)



Observing Members (27)

Algeria (IANOR)

Bhutan (BSB)

Botswana (BOBS)

Cameroon (ANOR)

Canada (SCC)

Colombia (ICONTEC)

Dominica (DBOS)

Georgia (GEOSTM)

Haiti (BHN)

Indonesia (BSN)

Iran, Islamic Republic of (ISIRI)

Japan (JISC)

Kazakhstan (KAZMEMST)

Kenya (KEBS)

Malaysia (DSM)

Mali (AMANORM)

Mongolia (MASM)

Netherlands (NEN)

New Zealand (NZSO)

Pakistan (PSQCA)

Philippines (BPS)

Singapore (ESG)

Spain (UNE)

Sri Lanka (SLSI)

Sweden (SIS)

Tunisia (INNORPI)

Zimbabwe (SAZ)

Scope

Scope:

Standardization of the whole process and circulation of bee products, including but not limited to the following:

- Products standards
- Basic standards
- Beekeeping practices
- Quality standards
- Testing method standards and storage & transportation standards.

Food safety standards are excluded (already covered in TC34/SC17).

Here, bee products include honey, royal jelly, beeswax, bee pollen, propolis etc. and products which have these as their main components (e.g. honey grapefruits tea, royal jelly oral liquid, bee pollen tablets, gingerbread, nougat, confectionery/candy...)

2. Status of Bee Product Standards

Bee Products Standards

Country / organization	Standard headlines	Original Standard headlines	Product category
ISO	Royal Jelly- Specifications ISO 12824	Royal Jelly- Specifications ISO 12824	Royal Jelly
CAC	CODEX STANDARD FOR HONEY	CODEX STANDARD FOR HONEY CODEX STAN 12-19811	Honey
JECFA	<u>Beewax</u>	BEESWAX	<u>Beewax</u>
USA	United States Standards for Grades of <u>Extracted Honey</u>	United States Standards for Grades of Extracted Honey	Honey
	Extracted honey grading manual	Extracted honey grading manual	Honey
	United States Standards for Grades of Comb Honey	United States Standards for Grades of Comb Honey	Honey
	Instructions for inspection of honey	Instructions for inspection of honey	Honey
Canada	CONSOLIDATION, Honey <u>Regulations C.R.C., c. 287</u>	CONSOLIDATION Honey <u>Regulations C.R.C., c. 287</u>	Honey
ANZ	Standard 2.8.2 Honey	Standard 2.8.2 Honey	Honey
EU	COUNCIL DIRECTIVE 2001/110/EC , of 20 December 2001 , relating to honey	COUNCIL DIRECTIVE 2001/110/EC of 20 December 2001 relating to honey	Honey
Japan	はちみつ類の表示に関する公正競争規約	はちみつ類の表示に関する公正競争規約	Honey
	はちみつ類の表示に関する公正競争規約	はちみつ類の表示に関する公正競争規約	Royal jelly
Korea	벌꿀류	벌꿀류	Honey and its

Standards published in English, Chinese, Japanese, Korean and German

Country	Standard headlines	Original Standard headlines	Product category
China	National Standard of the People's Republic of China, GB14963-2011	National Standard of the People's Republic of China honey	Honey
	Supply and Marketing Cooperatives Industrial Standard of the People's Republic of China, GH/T 18796—2012	Honey	Honey
	National Standard of the People's Republic of China, GB9697-2008		Royal jelly
	National Standard of the People's Republic of China, GB/T 21532-2008	Royal jelly and royal jelly powder	Royal jelly
	National Standard of the People's Republic of China, GB/T24283-2009	Propoils	Propoils
	Agricultural industrial standard of the People's Republic of China, NY/T 629-2002	Propoils	Propoils
	Professional standard of the People's Republic of China, SB/T 10096-92, SB/T 10190-93	Propoils, <u>beewax</u>	Propoils
	Pharmacopoeia of the People's Republic of China	Propoils, <u>beewax</u> , honey	Propoils
	National Standard of the People's Republic of China, GB/T30359-2013	Bee pollen	Bee pollen
	Supply and Marketing Cooperatives Industrial Standard of the People's Republic of China, GH/T 1014-1999	Bee pollen	Bee pollen
China Taiwan	National Standard of the Republic of China, CNS1305N5024	Honey	Honey
	National Standard of the Republic of China, CNS15474N5258	Royal jelly	Royal jelly

Standards published in English, Chinese, Japanese, Korean and German

CODEX STANDARD FOR HONEY

CODEX STAN 12-1981¹

The Annex to this Standard is intended for voluntary application by commercial partners and not for application by Governments.

1. SCOPE

1.1 Part One of this Standard applies to all honeys produced by honey bees and covers all styles of honey presentations which are processed and ultimately intended for direct consumption. Part Two covers honey for industrial uses or as an ingredient in other foods.

1.2 Parts Two of this Standard also covers honey which is packed for sale in bulk containers, which may be repacked into retail packs.

PART ONE

2. DESCRIPTION

2.1 DEFINITION

Honey is the natural sweet substance produced by honey bees from the nectar of plants or from secretions of living parts of plants or excretions of plant sucking insects on the living parts of plants, which the bees collect, transform by combining with specific substances of their own, deposit, dehydrate, store and leave in the honey comb to ripen and mature.

2.1.1 Blossom Honey or Nectar Honey is the honey which comes from nectars of plants.

2.1.2 Honeydew Honey is the honey which comes mainly from excretions of plant sucking insects (*Hemiptera*) on the living parts of plants or secretions of living parts of plants.

2.2 DESCRIPTION

Honey consists essentially of different sugars, predominantly fructose and glucose as well as other substances such as organic acids, enzymes and solid particles derived from honey collection. The colour of honey varies from nearly colourless to dark brown. The consistency can be fluid, viscous or partly to entirely crystallised. The flavour and aroma vary, but are derived from the plant origin.

3.5 SUGARS CONTENT

3.5.1 Fructose and Glucose Content (sum of both)

- | | | |
|-----|--|---------------------------|
| (a) | Honey not listed below | - not less than 60 g/100g |
| (b) | Honeydew honey,
blends of honeydew honey with blossom honey | - not less than 45 g/100g |

3.5.2 Sucrose Content

- | | | |
|-----|--|---------------------------|
| (a) | Honey not listed below | not more than 5 g/100g |
| (b) | Alfalfa (<i>Medicago sativa</i>), Citrus spp., False
Acacia (<i>Robinia pseudoacacia</i>), French
Honeysuckle (<i>Hedysarum</i>), Menzies Banksia
(<i>Banksia menziesii</i>), Red Gum (<i>Eucalyptus
camaldulensis</i>), Leatherwood (<i>Eucryphia
lucida</i>), Eucryphia milligani | - not more than 10 g/100g |
| (c) | Lavender (<i>Lavandula spp</i>), Borage (<i>Borago
officinalis</i>) | - not more than 15 g/100g |

3.6 WATER INSOLUBLE SOLIDS CONTENT

- | | | |
|-----|---------------------------------|----------------------------|
| (a) | Honeys other than pressed honey | - not more than 0.1 g/100g |
| (b) | Pressed honey | - not more than 0.5 g/100g |

CODEX STAN 12-1981

PART TWO

[Honey for Industrial Uses or as an Ingredient in other Foods]

This part is subject to further consideration.

- The value of some parameters is different according to different source.
- Two parts: one for direct consumption and the other one for industrial use.

BEESWAX

Joint Commission of
Experts on Food Additives
under the UN Food and
Agriculture Organization
and the World Health
Organization (JECFA)

Revised specifications prepared at the 65th JECFA (2005) and published in FNP 52 Add 13 (2005), superseding specifications prepared at the 39th JECFA (1992) and published in FNP 52 Add 1 (1992), and incorporating the decisions on the metals and arsenic specifications agreed at the 63rd JECFA (2004) and published in FNP 52 Add 12 (2004). The 65th JECFA (2005) considered the additive to be of no toxicological concern for the functional uses listed.

SYNONYMS

INS No. 901

DEFINITION

Beeswax is obtained from the honeycombs of bees (Fam. *Apidae*, e.g. *Apis mellifera* L) after the honey has been removed by draining or centrifuging. The combs are melted with hot water, steam or solar heat; the melted product is filtered and cast into cakes of yellow beeswax. White beeswax is obtained by bleaching the yellow beeswax with oxidizing agents, e.g. hydrogen peroxide, sulfuric acid, or sunlight. Beeswax consists of a mixture of esters of fatty acids and fatty alcohols, hydrocarbons and free fatty acids; minor amounts of free fatty alcohols are also present.

C.A.S. number

8006-40-4 (yellow beeswax)
8012-89-3 (white beeswax)

DESCRIPTION

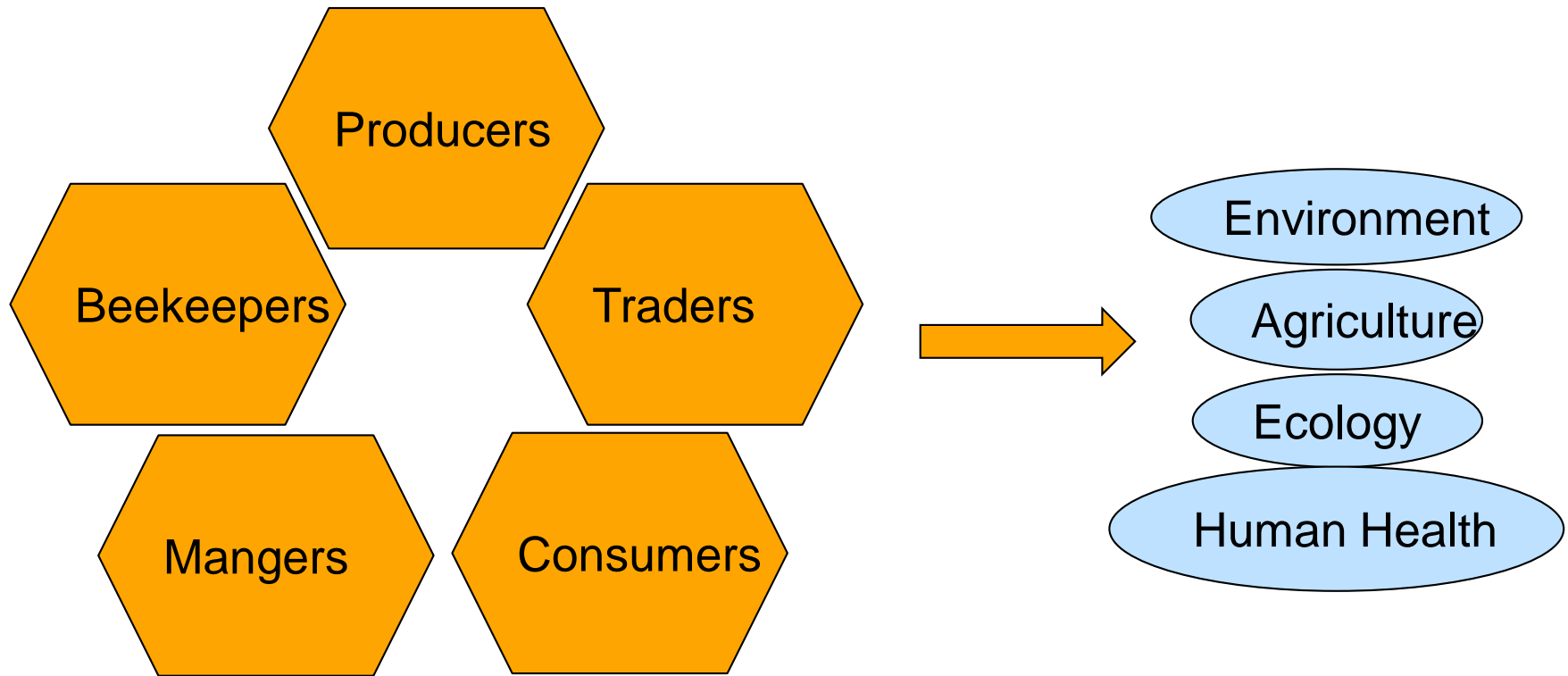
Yellow beeswax: yellow or light-brown solid that is somewhat brittle when cold and presents a dull, granular, non-crystalline fracture when broken; it becomes pliable at about 35°. It has a characteristic odour of honey.

White beeswax: white or yellowish white solid (thin layers are translucent) having a faint and characteristic odour of honey

FUNCTIONAL USES

Glazing agent; release agent; stabilizer; texturizer for chewing gum base; carrier for food additives (including flavours and colours); clouding agent

Stakeholders



- Improve international standards development and promote international trade
- Benefit stakeholders and keep bee colony increasing
- Promote the agricultural development, protect the ecological balance and eventually benefit human survival and reproduction

Laws and regulations of EU

For food hygiene, the requirements from the source to the consumption are specified throughout the process, including :

- 852/2004/EC 'Food hygiene requirements'
- 853/2004/EC 'Special hygiene requirements for animal-derived foods'
- 854/2004/EC 'Official source of food products regulatory requirements '
- 2073/2005/EC 'Food Microbiological Standards'
- 2074/2005/EC 'specific implementation measures on 853,854,882'

For food hygiene management, the requirements mainly include :

- 315/93/EC 'EU food contaminants management procedures'
- 2001/82/EC 'EU Veterinary Regulations'
- 396/2005/EC 'Maximum limit of pesticide residues in food and feed'
- 1333/2008/EC 'Food additives'

Countries interested in exporting honey to the EU need to submit residue controls including honey products. The EU does not have registration requirements for exporting honey businesses, thus allowing all honey enterprises that export honey to EU having a inspection-free access if their countries have it.

Agricultural Marketing Service

Creating Opportunities for American Farmers and Businesses

- USDA Agricultural Marketing Service(AMS)

- Specialty Crops Program,
 - Specialty Crops Inspection Division,
 - Standardization Branch

- Key programs

- U.S. Standards for Grades of Agricultural Products

- Commercial Item Descriptions(CIDs)

Why a honey CID now?

- Economic and fraud issues along with a diminished global
- Adulteration
- Source identity, variety, and quality issues
- CID as a guidance resource for purchasing, inspection, and investigations:
 - Institutional food service establishments
 - Domestic processors and associations
 - Federal and State regulatory agencies
 - U.S. Department of Homeland Security
 - U.S. Department of Commerce
 - USDA, AMS Science and Technology Laboratory

Two-tiered market

Honey CID A-A-20380 may include:

Types, sources, floral sources, preparations, colors, grades, agricultural practices.

Type I -Extracted(liquid)

Type II-Granulated(creamed)

Type III-Honeycomb(comb in wooden frame)

Type IV-Chunk(bulk)(comb in a container)

Source A-Blossom or nectar

Floral source 1-Unifloral

Floral source 2-Multifloral

Source B-Honeydew

Preparation a-Unfiltered/unstrained(raw)

Preparation b-Filtered(processed)

Preparation c-Strained(processed)

5.1 Processing. “The honey must be processed in accordance with C Manufacturing Practice(CGMP)(21 CFR Part 110)or the Current G Manufacturing Practice, Hazard Analysis and Risk-Based Preventive C Human Food(21 CFR Part 117)in effect on the date of the solicitation, contract, or purchase order, and as applicable to the production facility...”

5.2 Food defense. “The honey must be processed and transported in accordance with the Food and Drug Administration’s(FDA’s)Guidance for Industry: Food Producers, Processors, and Transporters: Food Security Preventive Measures Guidance. These guidance documents identify the kinds of preventive measures food manufacturers, processors, or handlers may take to minimize the risk that food under their control will be subject to tampering or other malicious, criminal, or terrorist actions...”

Authenticity test methods may include:

Inductive Coupled Plasma Mass Spectrometry(ICP-MS)-metals in source soil

Microscopy- source pollen identification

Nuclear Magnetic Resonance(NMR)- confirms floral source

Gas Chromatography- amino acids, phenols, sugars

Arsenic levels- presence of rice syrup

Proline levels- presence of added sugars

Electrical Conductivity- floral source via acid and mineral content

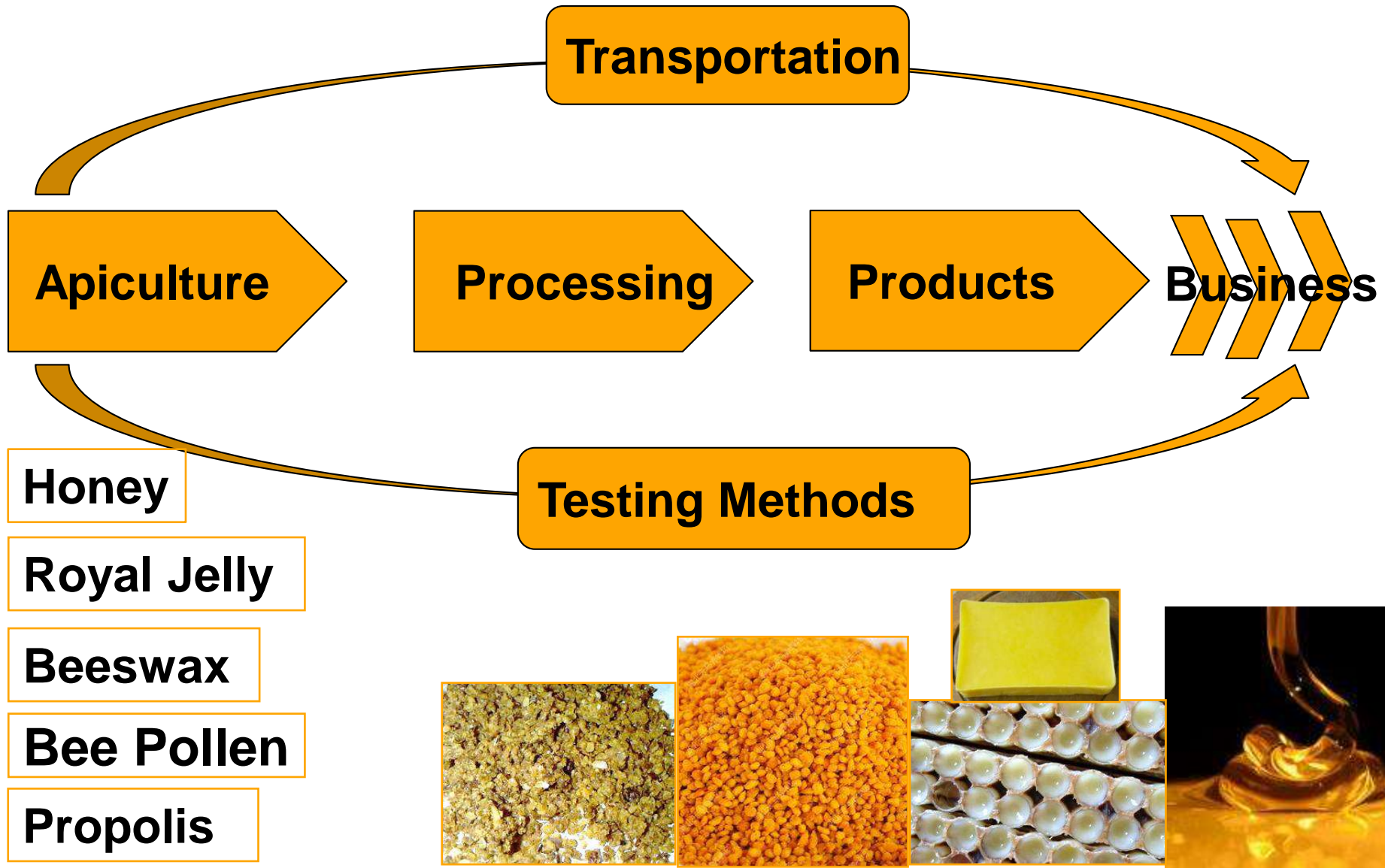
High performance Liquid Chromatography(HPLC)- sugar profile

Attitude of government

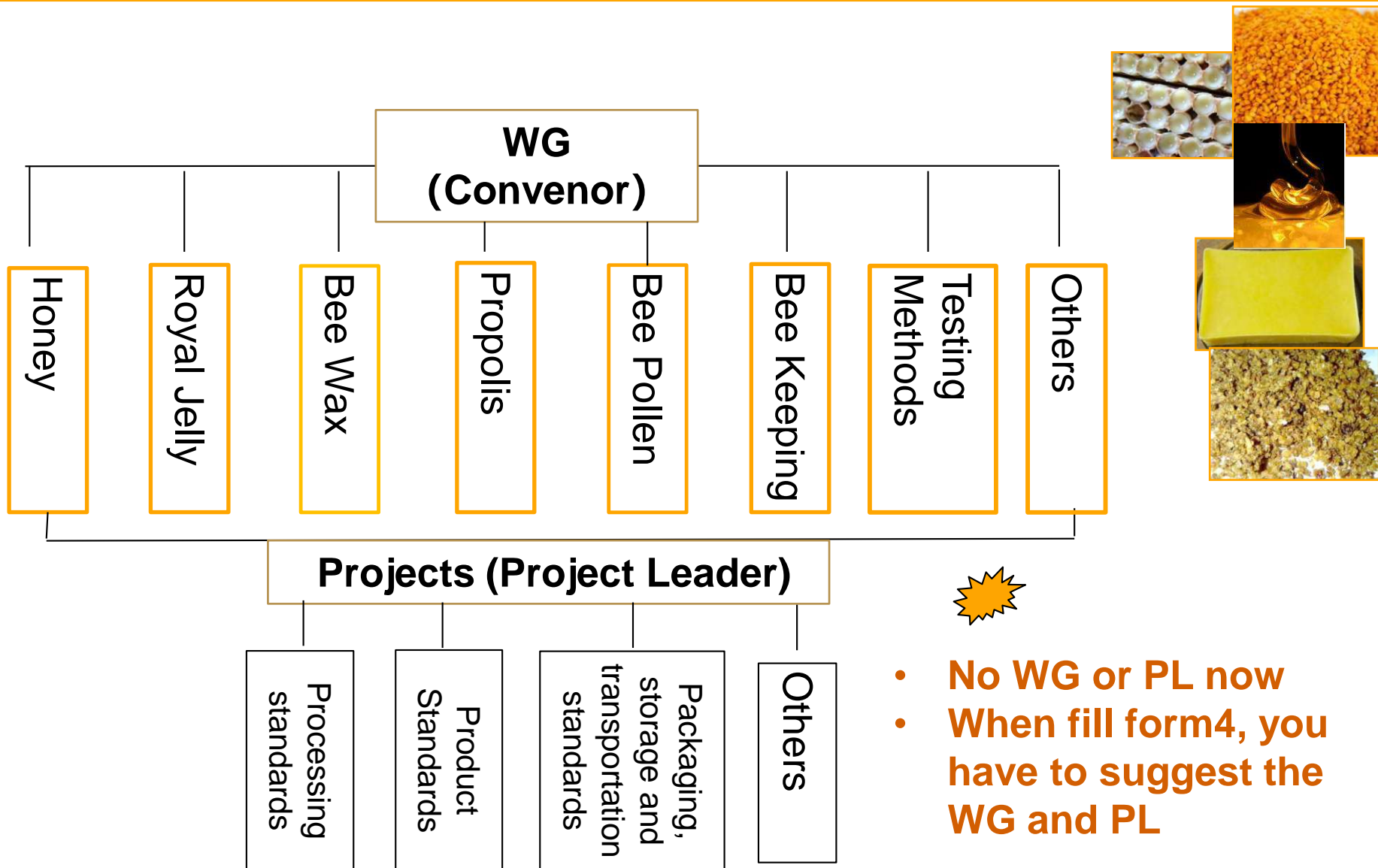
- New People's Republic of China Food Safety Promulgated
- Notification of the Import and Export Food Safety Supervision and Administration Measure(Draft)
- Honey Safety Standard GB Further Revision
- Local Regulatory Authorities to Carry Out Special Supervision and Inspection of Bee Products

3. Work Flow

Bee Products Industry Chain



The Structure of **ISO** TC 34/SC 19



About Working groups

1.12.1 Technical committees or subcommittees may establish working groups for specific tasks. A working group shall report to its parent technical committee or subcommittee through a convenor appointed by the parent committee.

Working group convenors shall be appointed by the committee for up to three-year terms ending at the next plenary session of the parent committee following the term. Such appointments shall be confirmed by the national body (or liaison organization). The convenor may be reappointed for additional terms of up to three-years. There is no limit to the number of terms. (2 years for SC 19?)

Responsibility for any changes of convenors rests with the committee and not with the national body (or liaison organization).

The convenor may be supported by a secretariat, as needed.

A working group comprises a restricted number of experts individually appointed by the P-members, A-liaisons of the parent committee and D-liaison organizations, brought together to deal with the specific task allocated to the working group. The experts act in a personal capacity and not as the official representative of the P-member or A-liaison organization by which they have been appointed with the exception of those appointed by D-liaison organizations. However, it is recommended that they keep close contact with that P-member or organization in order to inform them about the progress of the work and of the various opinions in the working group at the earliest possible stage.

It is recommended that working groups be reasonably *limited in size*. The technical committee or subcommittee may therefore decide upon the maximum number of experts appointed by each P-member and liaison organizations. (3 for each P-member or liaison?)

Once the decision to set up a working group has been taken, P-members and A- and D-liaison organizations shall be officially informed in order to appoint expert(s). Working groups shall be numbered in sequence in the order in which they are established.

When a committee has decided to set up a working group, the convenor or acting convenor shall immediately be appointed and shall arrange for the first meeting of the working group to be held within

12 weeks. This information shall be communicated immediately after the committee's decision to the P-members of the committee and A- and D-liaison organizations, with an invitation to appoint experts within 6 weeks.

1.12.2 The names and contact information of the working group experts shall be made available to the other working group experts and maintained by the national bodies (or the office of the CEO for liaison organizations).

The composition of the working group is defined in the ISO Global Directory (GD). **Experts not registered to a working group in the ISO GD may not participate in its work.**

1.12.3 Persistently inactive experts, meaning absence of contributions through attendance to working group meetings or by correspondence shall be removed, by the office of the CEO at the request of the technical committee or sub-committee secretary, from working groups after consultation with the P-member.

1.12.4 On completion of its task(s) — normally at the end of the enquiry stage of its last project — the working group shall be disbanded, the project leader remaining with consultant status until completion of the publication stage.

1.12.5 Distribution of the internal documents of a working group and of its reports shall be carried out in accordance with procedures described in the respective Supplements of the ISO/IEC Directives.

About WG

- TC/SC 为了某一任务设立WG； SC19为制定蜂蜜、蜂王浆、蜂胶、蜂蜡、蜂花粉、养蜂及蜂制品的相关规范而设立相应WG；
- SC成立伊始，尚未设立WG，因此，NP同时成立相应WG，并建议WG召集人。表4中，提议者可以是建议WG召集人，建议PL是项目负责人，并记入会议上纪要。对于争议较大的问题，可召开专门会议协商解决；

Proposed Project Leader (name and e-mail address) Click here to enter text. Click here to enter text.	Name of the Proposer (include contact information) Click here to enter text.	This proposal will be developed by: An existing Working Group (please specify which one: Click here to enter text.) A new Working Group (title: Click here to enter text.) <small>Note: establishment of a new WG must be approved by committee resolution)</small> <input checked="" type="checkbox"/> The TC/SC directly <input type="checkbox"/> To be determined
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- 召集人负责WG和TC/SC的沟通联络； 项目负责人（PL）与相应WG召集人沟通联络
- WG召集人任期一届最多三年（任期至全委会前），无届数限定；需要经NB确认，但其变更是技术委员会的责任，而非NB的责任；
- 由P成员A-联络组织和D-联络组织任命的有限数量（每个组织最多3人）专家组成，专家不代表任命他的成员或组织，但应该与相应组织保持联络，信息互通

- TC/SC可根据实际情况决定WG的规模，限定每个P成员或联络组织任命的专家数量；**SC19拟设定WG规模不超过21人，每个P成员或联络组织专家数量不超过3人；**
- WG一旦成立，P成员或联络组织将会收到官方通知，并任命专家，编号按照成立先后编写；
- 一旦决定成立WG，召集人需要立即被任命并在12周内召开第一次会议，而P成员和联络组织会被邀请在6周内完成专家任命；
- 持续不积极活动的专家，经TC/SC秘书处与P成员讨论，可向CEO办公室提出除名请求；
- **WG需要保持足够的活跃度，完成最后一个项目后，WG被暂停，SC19建议假如1年内没有运行的项目，建议取消该WG；**
- 必要时可以形成联合WG

About New Work Item Proposal



International Organization for Standardization
Organisation internationale de normalisation
Международная организация по стандартизации



Ch. de Blandonnet 8 | CP 401, 1214 Vernier | Geneva, Switzerland | T: +41 22 749 01 11 | central@iso.org | www.iso.org

Form 4: New Work Item Proposal

Circulation date: Click here to enter text. Closing date for voting: Click here to enter text.	Reference number: Click here to enter text. (to be given by Central Secretariat)
Proposer (e.g. ISO member body or A liaison organization) Click here to enter text.	ISO/TC Click here to enter text. / SC Click here to enter text. <input type="checkbox"/> Proposal for a new PC
Secretariat Click here to enter text.	N Click here to enter text.

Proposed Project Leader (name and e-mail address)

[Click here to enter text.](#)

[Click here to enter text.](#)

Name of the Proposer
(include contact information)

[Click here to enter text.](#)

committee shall be submitted to secretariat and, in the case of a committee. Proposals not within the scope of the ISO Technical

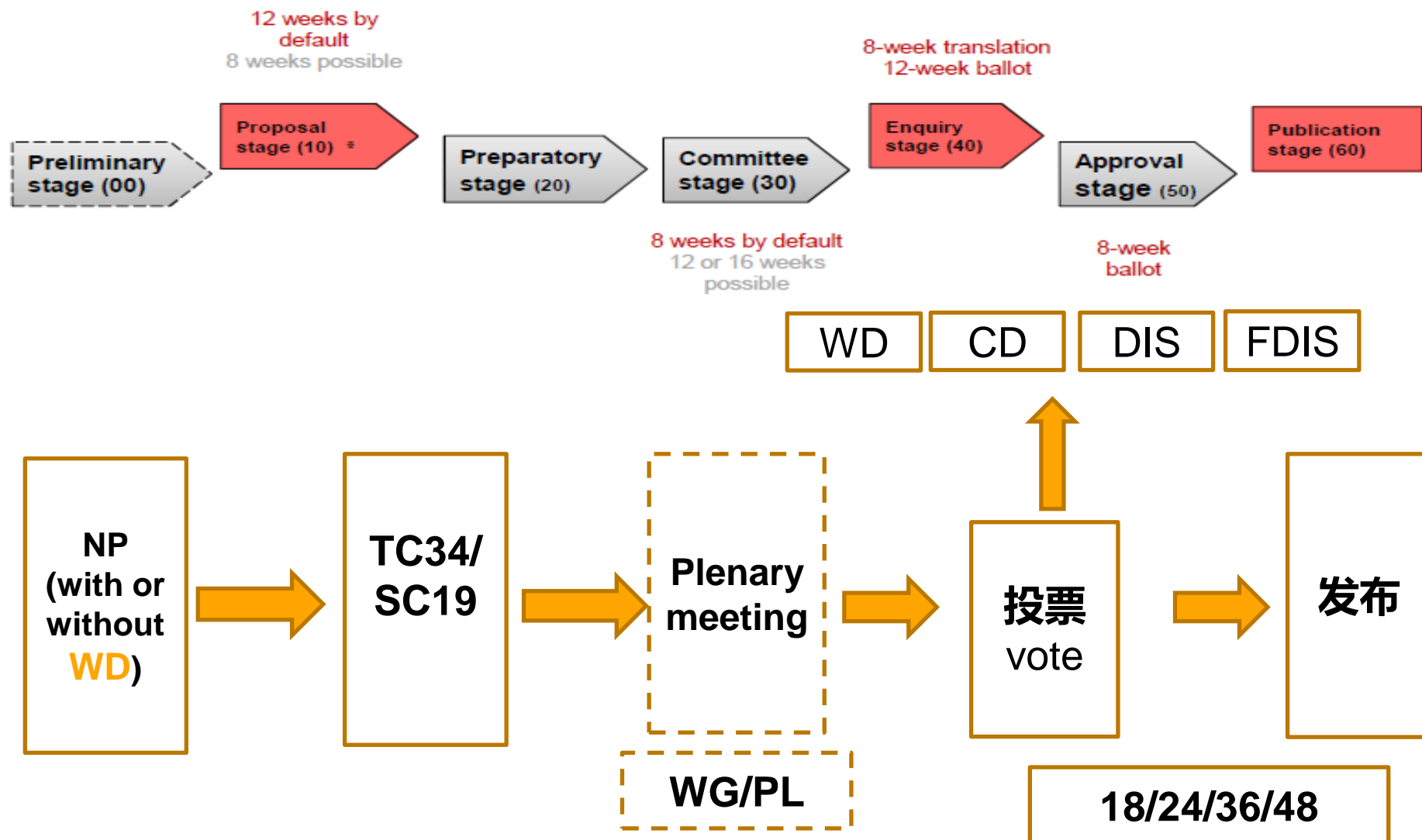
This proposal will be developed by:

- ☐ An existing Working Group (please specify which one: [Click here to enter text.](#))
 - ☐ A new Working Group (title: [Click here to enter text.](#))
- (Note: establishment of a new WG must be approved by committee resolution)
- ☐ The TC/SC directly
 - ☐ To be determined



International Organization for Standardization

When the world agrees



The Proposer

2.3.2 A new work item proposal within the scope of an existing technical committee or subcommittee may be made in the respective organization by

- a national body;
- the secretariat of that technical committee or subcommittee;
- another technical committee or subcommittee;
- an organization in category A liaison;
- the technical management board or one of its advisory groups;
- the Chief Executive Officer.

NP Acceptance requires

- a) approval of the work item by a simple majority of the P-members of the technical committees or subcommittees voting — abstentions are excluded when the votes are counted; and
- b) a commitment to participate actively in the development of the project, i.e. to make an effective contribution at the preparatory stage, by nominating technical experts and by commenting on working drafts, by at least 4 P-members in committees with 16 or less P-members, and at least 5 P-members in committees with 17 or more P-members; only P-members having also approved the inclusion of the work item in the programme of work will be taken into account when making this tally. If experts are not nominated on the form accompanying an approval vote, then the national body's commitment to active participation will not be registered and considered when determining if the approval criteria have been met on this ballot.

Liaisons

Codex Alimentarius Commission (CAC)

International Federation of Beekeepers' Associations (APIMONDIA)

International Honey Commission (IHC)

Asia Apiculture Association (AAA)

ISO/TC34/SC17 "Management systems for food safety"

COPA-COGECA

Committee of Professional Agricultural Organisations - General Committee for
Agricultural Cooperation in the European Union

1.17.2.1 At the technical committee/subcommittee level (Category A and B liaisons)

— **Category A:** Organizations that make **an effective contribution** to the work of the technical committee or subcommittee for questions dealt with by this technical committee or subcommittee. Such organizations are given access to all relevant documentation and are invited to meetings. They may nominate experts to participate in a WG .

— **Category B:** Organizations that have indicated a wish to be **kept informed** of the work of the technical committee or subcommittee. Such organizations are given access to reports on the work of a technical committee or subcommittee.

NOTE Category B is reserved for inter-governmental organizations.

1.17.2.2 At the working group level (Category D liaisons)

— **Category D:** Organizations that **make a technical contribution to and participate actively** in the work of a working group. This can include manufacturer associations, commercial associations, industrial consortia, user groups and professional and scientific societies. Liaison organizations shall be multinational (in their objectives and standards development activities) with individual, company or country membership and may be permanent or transient in nature.

4. Work Plan

Work Schedule

- Extensive collection of opinions on bee products standards worldwide.
- 2017.10-2018.1 Finish the establishment of TC32/SC19 Secretariat.
- 2018 In the first half of the year, the first meeting of SC19 will be convened:

Discuss and determine the scope of the SC and discuss Working Group Establishment. Pay attention to Workflow.

- More people participate in.
- Contact APIMODIA, find the chance to cooperate .
- Contact other organizations. CAC, IHC,AAA...

Current Work Plan

Initial Work Programme (finish in 3-5 years and submit FDIS):

- Develop Honey standards (using CAC honey standard requirements as a minimum) .Two or three of the following as demonstration:
 1. Product standards: honey product specifications
 2. Basic standards including terminology, definitions.
 3. Beekeeping practices (how to breed bees, how to collect honey)
 4. Quality standards include the control of components and drug & pesticide residues (food safety is not included).
 5. Testing methods standards including the testing methods of components, for example, the water, sugar, protein and amino acid, especially the special components in honey.
 6. Storage and transportation standards include packaging, labelling and storage & transportation standards.
- Develop 1-2 royal jelly /propolis/pollen standards.
- Develop 1-2 testing methods standards.

Standards System and Work Plan

Future Work Programme (finish in 5-8 years or longer):

- Develop bee products standards covering all bee products including product standards, basic standards, quality standards, testing method standards and storage & transportation standards.

Standards System:

- Standard system for apiculture. Contains variety, environment, facilities, nectar and other related links to be covered in consensus standards.
- Standard system for bee products. Contains technical and management standards for bee products.
- Trade circulation standards. Need to reach agreement on bee products trade.

Research and Cooperation

Geographical Influences on Content of 10-Hydroxy-trans-2-Decenoic Acid in Royal Jelly in China

Changes in composition of royal jelly harvested at different times: consequences for quality standards

Identification of Catechol as a New Marker for Detecting Propolis Adulteration

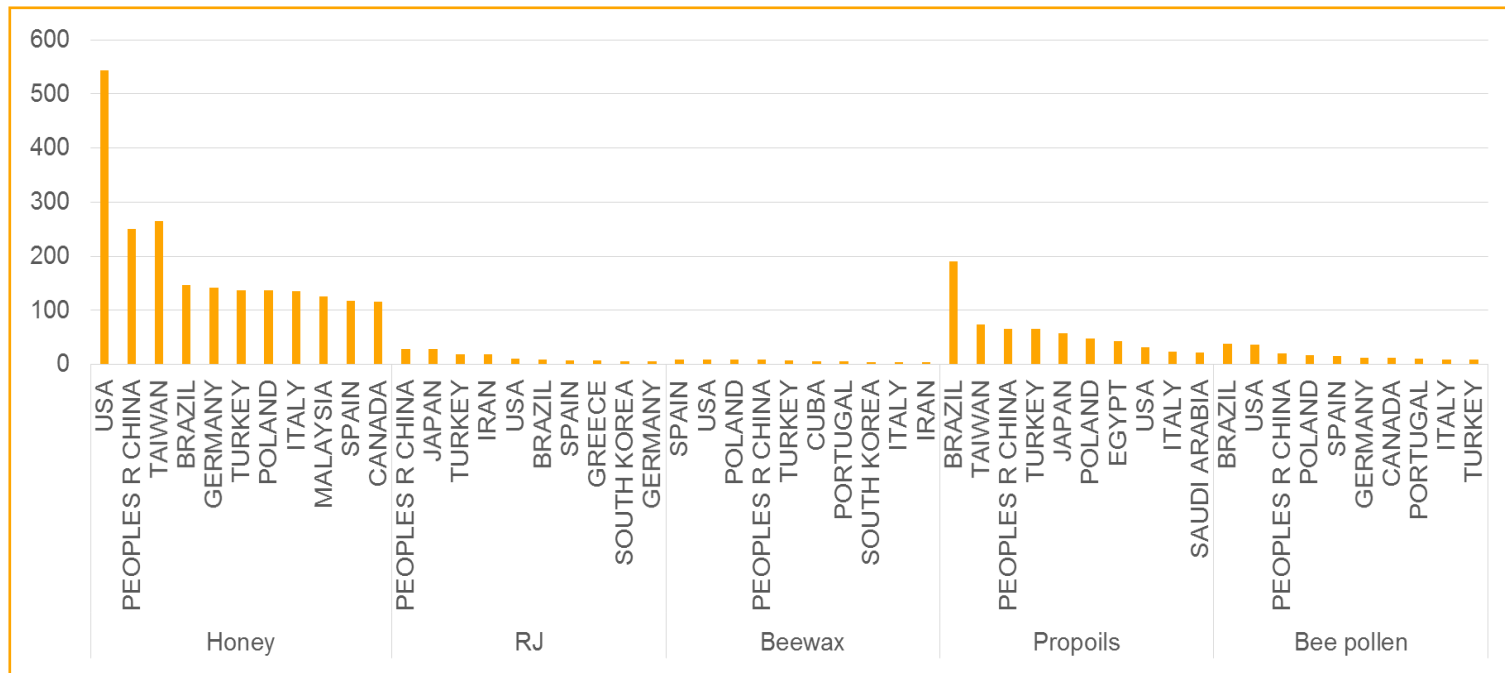
Development and validation of HPLC method for determination of salicin in poplar buds: Application for screening of counterfeit propolis

Development of High-Performance Liquid Chromatographic for Quality and Authenticity Control of Chinese Propolis

Identification of monofloral honeys using HPLC-ECD and

chemometrics

Number



Great chance for beekeepers, enterprises, research institutes, consumers and governments all over the world to cooperate.