

| | |
|-------------------|--|
| Country | Thailand |
| Document Assessed | THAI AGRICULTURAL STANDARD : ORGANIC AGRICULTURE, PART 1: THE PRODUCTION, PROCESSING, LABELLING AND MARKETING OF PRODUCE AND PRODUCTS FROM ORGANIC AGRICULTURE (TAS 9000-2009) |

| Detailed objectives and general requirements to address them | Relevant parts of organic standards | Article number | assessment ¹ | comment by assessor | comment by stakeholders | final Assessment |
|---|--|----------------|-------------------------|---|--|--|
| 1. Employ long-term, ecological, systems-based organic management. | | | | | | |
| 1.1 General Farming Management Systems: | | | | | | |
| 1.1.1 ensure the long-term management and resilience of an organic farm holding by respecting, maintaining, improving and completing ecological cycles and the quality of ecosystems and the landscape; | 3.4 The preservation of the ecological balance in the farm and the sustainability of the ecology as a whole; | 3.4 | p | address as principle not as requirement | <p>Y</p> <p>General Farming Management Systems : from 1.1.1 to 1.1.3 are in TAS 9000-part 1: Section 4 (4.7,4.8)</p> <p>ขอให้พิจารณาข้อกำหนดในข้อ 4 ครอบคลุมเรื่อง ecology และ landscape แล้ว นอกจากนี้ตาม TAS 9000 Principle ในข้อ 3 ก็ถือว่าเป็นสิ่งที่ต้องปฏิบัติในภาพรวม</p> | P: address as principle not as requirement |
| 1.1.2 Attain ecological balance through the design of locally adapted farming systems; | -- | -- | n | not address | <p>Y</p> <p>TAS 9000-part 1: 4.7,4.8</p> | N: not address |

1 Letter "y" = equivalent, "n" = not equivalent, "p" = partial equivalent, and "a" = additional objective

| Detailed objectives and general requirements to address them | Relevant parts of organic standards | Article number | assessment | comment by assessor | comment by stakeholders | final Assessment |
|---|---|----------------|------------|-----------------------------|---|---|
| 1.1.3 do not rely upon switching between organic and conventional management. | 4.5 Areas converted to organic agriculture shall not be converted back to use chemicals. | 4.5 | y | -- | | Y: -- |
| 1.2 Crop Production Management Systems: | | | | | | |
| 1.2.1 are based on conserving or improving soil structure, organic matter, soil fertility and biodiversity; | 4.7 The fertility and biological activity of the soil shall be maintained or increased, where appropriate, | 4.7 | p | biodiversity is not covered | Y TAS 9000-part 1: Section 3.7,4.7,4.8(4) อยู่ในหลักการ 3.7 แล้ว+4.7 มีทั้ง principle และ requirement | P: biodiversity is not covered as requirements, biodiversity conservation is mentioned as general principles. |
| 1.2.2 include a diverse crop rotation as an integral part of the management system of the holding. For perennial crops this includes cover crops (green manures) and/or other plant-based ground cover. For annual crops this includes minimum crop rotation practices, cover crops (green manures) or other diverse plant production with comparable achievements; | 4.7 The fertility and biological activity of the soil shall be maintained or increased, where appropriate, by: (1) Cultivation of legumes, green manures or deep-rooting plants in an appropriate multi-annual rotation programme; | 4.7 | y | -- | | Y: -- |
| 1.2.3 promote and sustains the health of crops while maintaining productivity and the integrity of the agro-ecosystem. This is accomplished through interrelated positive processes and mechanisms for the management of pests, diseases, and weeds. These include but are not limited to site and crop adapted fertility management and soil cultivation, choice of appropriate varieties, enhancement of functional biodiversity; and in case additional measures are required, restricted use of crop protectants and growth regulators. | 4.8 Pests, diseases and weeds shall be controlled by any one, or a combination, of the following measures: (1) Choice of appropriate species and varieties; (2) Appropriate rotation programs; (3) Mechanical cultivation; (4) Conservation of natural enemies of pests through provision of favourable habitat, such as hedges and nesting sites, ecological buffer zones which maintain the original vegetation to house pest predators; (5) Maintaining the ecosystems, for example, by making strip to prevent soil erosion, and through use of crop rotation; 4.9 Only in cases of imminent or serious | 4.8 | y | -- | | Y: -- |

| Detailed objectives and general requirements to address them | Relevant parts of organic standards | Article number | assessment | comment by assessor | comment by stakeholders | final Assessment |
|---|--|----------------|------------|---------------------|---|---|
| | threat to the crop and where the measures identified in Section 4.8 are, or would not be effective, the substances in Annex A. Table A.3 may be applied. | 4.9 | | | | |
| 1.2.4 Excluded systems: Hydroponic production. | -- | -- | n | not address | | N: not address |
| 1.3 Animal Production Management Systems: | | | | | | |
| 1.3.1 are based on the harmonious relationship between land, plants and animals; | 6.1 Organic livestock production principles 6.1.1 Production of organic livestock on organic agriculture farm. Livestock shall be part of the farm and shall be managed according to this standard. ... 6.1.2 The livestock is a major help in maintaining organic agriculture on farm by: 6.1.2.3 Enhancing biodiversities and diversity of the farming system; 6.1.2.4 Diversifying the farming produce. | 6.1 | y | -- | | Y: -- |
| 1.3.2 assure the health of animals and meet their physiological needs; | -- | -- | n | not address | Y in Organic Livestock (TAS9000-part2) Section 4.5,4.6 | N: not address |
| 1.3.3 treat animals respectfully and support their natural and social behavior and welfare; | -- | -- | n | not address | Y in Organic Livestock (TAS9000-part2) Section 3.3,3.5,4.5,4.6 | N: not address |
| 1.3.4 preserve the agroecosystem and surrounding environment. | -- | -- | n | not address | P in Organic Livestock | P: address as general principle, not as requirement |

| Detailed objectives and general requirements to address them | Relevant parts of organic standards | Article number | assessment | comment by assessor | comment by stakeholders | final Assessment |
|--|--|----------------|------------|--|---|---|
| | | | | | (TAS9000-part2) Section 3.2 Address as principle not as requirement | |
| 1.4 Beekeeping Management Systems: | | | | | | |
| 1.4.1 maintain bee colonies as an integral part of the ecosystem and support their natural cycles. | -- | -- | n | not address | Y in Organic Livestock (TAS9000-part2) Section 8 | N: not address |
| 1.5 Aquaculture Management Systems: | | | | | | |
| 1.5.1 maintain well-being of the farmed species, the biodiversity of natural aquatic ecosystems, the health of the aquatic environment, and the quality of surrounding aquatic and terrestrial ecosystems. | NOT APPLICABLE | | | | Section 5 Of TAS 9000-Part 1 | |
| 1.6 Wild Collection Management Systems: | | | | | | |
| 1.6.1 do not exceed sustainable yield of the local ecosystem, nor threaten the existence of plant, fungal or animal species, including those not directly exploited. | 4.11.2 The collection does not disturb the environment, the ecology or the conservation of the species in the collection area. | 4.11 | y | -- | | Y: -- |
| 1.6.2 collect products only from within the boundaries of the clearly defined wild collection area. | 4.11.1 The produce is from a clearly defined area in the case of wild harvest. The area shall never been used for agriculture or applied with prohibited substances at least 3 years. The harvest is subject to the inspection/ certification from certification body; | 4.11 | y | -- | | Y: -- |
| 1.7 Processing Management Systems: | | | | | | |
| 1.7.1 maintain organic integrity of processed products, contribute to health and well-being of humans and animals (in the case of animal feed), produce high-quality products and protect the environment. | 7.1 The organic integrity of the produce or product shall be maintained throughout all steps in the production and processing chain. This is achieved by the use of techniques appropriate to the ingredients | 7.1 | p | contribution to health and well being as well as high-quality products and | Y TAS 9000-Part1 3.8,3.9, 7.4.3,9.1.3,9.1.4 | P: contribution to health and well being as well as high-quality products and environmental |

| Detailed objectives and general requirements to address them | Relevant parts of organic standards | Article number | assessment | comment by assessor | comment by stakeholders | final Assessment |
|---|---|----------------|------------|---|---|--|
| | with careful processing methods, limiting the use of food additives and processing aids. Ionizing radiation shall not be used on organic products for the purpose of pest control, food preservation, elimination of pathogens, or sanitation. | | | environmental protection are not addressed | | protection are not addressed |
| 1.8 Transition/Conversion Requirements for Organic Production Management Systems: | | | | | | |
| 1.8.1 clearly identify when organic practices begin and how long they are applied before the operation and products can be considered organic, taking into consideration the balance of the ecosystem and the skills of the operator. This may include specific conditions for simultaneous transition/conversion of land and animals and is no less than twelve months for the system. | 4.1 Organic production requirements for plants shall be used throughout the entire transition period of at least 12 months before planting for annual crops and 18 months before the first harvesting of organic produce for perennial crops. Transition period shall be started from the time a producer practicing according to this standard and applying for the certification from the certification body. | 4.1 | y | -- | | Y: -- |
| 1.8.2 for crops, establish a suitable period of organic management prior to the organic status of a crop, during which contaminants are reduced, and healthy soils and sustainable ecosystems are being established, and which is no less than twelve months. | 4.2 In case that there is an evidence indicating the absence of prohibited chemicals longer than 12 months before planting for annual crops and 18 months the first harvesting of organic produce for perennial crops, producer may request shorter transition period from the certification body. However, the time from applying for certification until the produce being certified as organic shall not be less than 6 months | 4.2 | n | the conversion can be reduced to 6 months | P TAS 9000-part 1: 4.1,4.2 4.1 เป็นข้อกำหนดหลักที่ 12/18 เดือน 4.2 เป็นเพียงข้อยกเว้นในกรณีที่มีหลักฐานแสดงว่าไม่ใช้สารเคมีมานานจึงสอดคล้องเป็นบางส่วน = P | N: the conversion can be reduced to 6 months |
| 1.8.3 raise animals organically from birth or hatching, or when this is not possible from early ages subject to a minimum transition/conversion requirement. Guidelines for minimum transition/conversion requirements: dairy – 90 days. eggs and poultry meat – 42 days; other meat – 12 months; aquatic animals – two thirds lifespan or 12 months, whichever is shorter; bee colonies – time needed for wax replacement with minimum twelve months. | 6.2.3 Transition period shall be started from the time a producer practicing according to this standard and applying for the certification from the certification body. Conversion period for each livestock species shall be complied with TAS 9000 Part 2, Thai Agricultural Standard on Organic Agriculture Part 2: Organic Livestock. | 6.2 | p | details of the conversion time for each animals are not available | Y in Organic Livestock (TAS9000-part 2) Annex A, Section 2, Table 2 | P: minimum conversion of some meat production are 4 and 6 months, less than 12 month. Others are equivalent. |

| Detailed objectives and general requirements to address them | Relevant parts of organic standards | Article number | assessment | comment by assessor | comment by stakeholders | final Assessment |
|--|---|----------------|------------|-------------------------|--|---------------------------------------|
| 2. Assure long-term, biologically-based soil fertility | | | | | | |
| 2.1 Soil Fertility Management: | | | | | | |
| 2.1.1 nourishes plants primarily through the soil ecosystem, and achieves nutrient balance. | -- | -- | n | not address | P TAS 9000-part 1: 4.7 4.7 อ้างแล้ว แต่ไม่ได้บอก nutrient balance | N: not address |
| 2.1.2 enhances the soil-ecosystem and achieves nutrient balance primarily by incorporating manures and other biodegradable inputs, and/ or by nitrogen fixation from plants. | 4.7 The fertility and biological activity of the soil shall be maintained or increased, where appropriate, by: (1) Cultivation of legumes, green manures or deep-rooting plants in an appropriate multi-annual rotation programme; (2) Incorporation in the soil of organic materials, livestock manure, shall be from holdings producing in accordance with this standard; | 4.7 | y | -- | | Y: -- |
| 2.1.3 employs measures to recycle organic materials within the production system. | -- | -- | n | not address | P TAS 9000-part 1: 3.1,3.2,3.3,4.7 Note ต้องมีการประเมินมาตรฐานความอุดมสมบูรณ์ของดินตลอดข้าว เก็บดิน น้ำวัดแต่ไม่ได้เปรียบเทียบ มีในหมายเหตุ 4.7 แต่ยังไม่ชัดเจน ต้องเป็น integrated farm Partial แต่มีปรากฏใน เล่ม 2 เรื่องระบบฟาร์มด้วย | N: not address |
| 2.1.4 uses naturally occurring mineral fertilizers only as a supplement to biologically-based fertility | 4.7 The fertility and biological activity of the soil shall be maintained or increased, where | -- | y | mineral fertilizers are | | Y: mineral fertilizers are allowed as |

| Detailed objectives and general requirements to address them | Relevant parts of organic standards | Article number | assessment | comment by assessor | comment by stakeholders | final Assessment |
|---|---|----------------|------------|--|---|---|
| methods. | appropriate, by: Note In case the methods set out in 4.7(1) and 4.7(2) cannot provide adequate nutrition to the crop or there are not enough organic substances in accordance with this standard, the substances specified in Annex A, Table A.1 may be applied. | | | allowed as supplement | | supplement |
| 2.1 5 excludes or restricts certain practices that may be inconsistent with organic management objectives including: - use of sodium nitrate - land preparation by burning - use of human excrement on crops for human consumption | -- | -- | p | sodium nitrate and human excrements are not in the positives lists, thus are not allowed. But burning is not prohibited. | Y TAS 9000-part 1: 3.5 -เรื่อง burning อยู่ในข่าวอินทรีย์ห้ามเผาต่อซึ่ง -Nitrate ไม่มีใน positive list แสดงว่าเป็นสิ่งที่ห้ามใช้ -ของเสียจากคนไม่พูดถึงต้องการสื่อให้ทราบทั่วประเทศไทยไม่ให้ใช้ | P: sodium nitrate and human excrements are not in the positives lists, thus are not allowed. But burning is not prohibited. |
| 3. Avoid/minimize synthetic inputs at all stages of the organic product chain and exposure of people and the environment to persistent, potentially harmful chemicals. | | | | | | |
| 3.1 Crop Production: | | | | | | |
| 3.1.1 uses only crop production inputs, including fertility substances and active substances for pest/disease/growth management, that are on the Indicative lists of substances for organic production and processing in international organic standards, or they comply with the criteria for these lists, or they are otherwise explicitly approved in these standards. | 4.7 The fertility and biological activity of the soil shall be maintained or increased, where appropriate, by: Note In case the methods set out in 4.7(1) and 4.7(2) cannot provide adequate nutrition to the crop or there are not enough organic substances in accordance with this standard, the substances specified in Annex A, Table A.1 may be applied. 4.9 Only in cases of imminent or serious threat to the crop and where the measures | 4.7 | y | -- | | Y: -- |

| Detailed objectives and general requirements to address them | Relevant parts of organic standards | Article number | assessment | comment by assessor | comment by stakeholders | final Assessment |
|---|---|----------------|------------|---|---|--|
| | identified in Section 4.8 are, or would not be effective, the substances in Annex A. Table A.3 may be applied. | 4.9 | | | | |
| 3.1.2 Co-formulants (e.g. inert and synergists) in formulated farm input products are not carcinogens, mutagens, teratogens or neurotoxins. | -- | -- | y | not in the positives lists, thus are not allowed. | | Y: not in the positives lists, thus are not allowed. |
| 3.1.3 Excludes any use of synthetic nitrogen fertilizers and superphosphates. | -- | -- | y | not in the positives lists, thus are not allowed. | | Y: not in the positives lists, thus are not allowed. |
| 3.2 Animal Production | | | | | | |
| 3.2.1 excludes synthetic feed rations: amino acids, nitrogen compounds (e.g. urea), growth promoters, stimulants appetizers, preservatives and coloring agents . | 6.2.4 Requirements on feedstuffs, livestock health management, livestock management, recording, environmental management for production system of organic livestock species shall be complied with TAS 9000 Part 2, Thai Agricultural Standard on Organic Agriculture Part 2: Organic Livestock | | | no details given to make the assessment | Y in Organic Livestock (TAS9000-part2) Section 4.4.9, 3.7.3,3.8(5) | P: not specifically prohibited synthetic amino acid, nor appetizers. Other are excluded. |
| 3.2.2 vitamins, trace elements and supplements provided to animals are from natural sources unless they are not available in sufficient quantity and/ or quality. | 6.2.4 Requirements on feedstuffs, livestock health management, livestock management, recording, environmental management for production system of organic livestock species shall be complied with TAS 9000 Part 2, Thai Agricultural Standard on Organic Agriculture Part 2: Organic Livestock | | | no details given to make the assessment | Y (TAS9000-part 2) 3.7.2 | Y: -- |
| 3.2.3 excludes from the system all prophylactic use of synthetic allopathic veterinary drugs. | 6.2.4 Requirements on feedstuffs, livestock health management, livestock management, recording, environmental management for production system of organic livestock species shall be complied with TAS 9000 Part 2, Thai Agricultural Standard on Organic Agriculture Part 2: Organic Livestock | | | no details given to make the assessment | Y (TAS9000-part 2) 3.8.5, 4.4 | y -- |

| Detailed objectives and general requirements to address them | Relevant parts of organic standards | Article number | assessment | comment by assessor | comment by stakeholders | final Assessment |
|--|--|----------------|------------|---|--|------------------|
| 3.2.4 use of antibiotic and other allopathic veterinary drugs for animals is strictly limited to the treatment of illness and injuries under the supervision of qualified personnel, and subject to defined withdrawal periods that are not less than double that required by legislation. | 6.2.4 Requirements on feedstuffs, livestock health management, livestock management, recording, environmental management for production system of organic livestock species shall be complied with TAS 9000 Part 2, Thai Agricultural Standard on Organic Agriculture Part 2: Organic Livestock | | | no details given to make the assessment | Y (TAS9000-part 2) 4.3.3,4.4,4.5,4.6 | Y: -- |
| 3.2.5 in aquaculture, all use of allopathic veterinary medication for invertebrates is excluded from the system. | n.a. | -- | -- | -- | | n.a. |
| 3.3 Processing | | | | | | |
| 3.3.1 Processing methods other than biological, mechanical or physical techniques are restricted. | 7.4.1 Processing shall be mechanical, physical or biological methods (such as fermentation and smoking) and minimize the use of non-agricultural ingredients and processing aids as listed in Annex A, Tables A.5 and A.6. | 7.4 | y | -- | | Y: -- |
| 3.3.2 Any additives, processing aids or other substances that are used and modify organic products are on the indicative lists of international organic standards, or comply with the criteria for these lists, or are otherwise explicitly allowed in these standards. | 7.4.1 Processing shall be mechanical, physical or biological methods (such as fermentation and smoking) and minimize the use of non-agricultural ingredients and processing aids as listed in Annex A, Tables A.5 and A.6. | 7.4 | y | -- | | Y: -- |
| 3.3.3 Solvents used for extraction are restricted and are on the indicative lists of international organic standards, or comply with the criteria for these lists. | 7.4.2 In extraction, only water, ethanol, vegetable or animal oil, vinegar, carbon dioxide, and nitrogen shall be used. | 7.4 | y | -- | | Y: -- |
| 3.3.4 Disinfecting and sanitizing substances that may come in contact with organic products are restricted to water and substances on the indicative lists of international standards or comply with the criteria for these lists. | 7.3.3 If mechanical/physical and biological methods are inadequate for pest control, pesticide substances appearing in Annex A Tables A.3 and A.4 or other substances allowed for use by a competent authority in accordance with Section 9 of this standard may be used provided that contact with organic products is prevented. | 7.3 | y | -- | | Y: -- |
| 3.4. Contamination | | | | | | |
| 3.4.1 Precautionary measures are taken to avoid contamination. | 4.6 Producer shall have measures such as barrier, ridge or planting as buffer zone to | 4.6 | y | -- | | Y: -- |

| Detailed objectives and general requirements to address them | Relevant parts of organic standards | Article number | assessment | comment by assessor | comment by stakeholders | final Assessment |
|---|---|----------------|------------|--|--|----------------------------------|
| | avoid contamination through soil, water, or air from adjacent plantation or polluted area. The measures shall be suitable for each contamination risk. 7.2 Organic produce and products during handlings, transportation, processing, or packaging shall be clearly indicated and separated from the non-organic produce or products. There shall be a managing system to prevent the contamination from the substances prohibited to use in organic agriculture. | 7.2 | | | | |
| 3.4.2 Where there is reasonable suspicion of contamination, an investigation is made, the source of the contamination sought and measures are taken to address the problem. | -- | -- | n | no investigation is required ในมาตรฐานไม่ได้ระบุเพราะเงื่อนไขเหล่านี้เป็นวิธีการปฏิบัติของการตรวจรับรองซึ่งทำเป็นปกติโดยหน่วยตรวจรับรอง | N | N: no investigation is required |
| 4. Minimize pollution and degradation of the production/processing unit and surrounding environment from production/processing activities. | | | | | | |
| 4.1 General | | | | | | |
| 4.1.1 risks of environmental pollution are identified and minimized. | 3.5 The prevention and avoidance of activities that cause environmental pollution; | 3.5 | p | address as general principles | Y เป็นหลักการที่ต้องนำไปปฏิบัติ ไม่ได้มองที่ activities แต่มองที่ outcome | P: address as general principles |
| 4.1.2 organic systems employ measures to reduce, reuse, and/ or recycle residual materials. | -- | -- | n | not address | P TAS 9000-part 1: 4.1,4.2 | N: not address |

| Detailed objectives and general requirements to address them | Relevant parts of organic standards | Article number | assessment | comment by assessor | comment by stakeholders | final Assessment |
|---|---|----------------|------------|------------------------------------|--|---------------------------------------|
| | | | | | เหมือนข้อ 2.1.3 | |
| 4.2 Farm Production and Beekeeping | | | | | | |
| 4.2.1 Biodiversity is maintained or enhanced on the farm holding, in crop and non-crop habitats. | 3.7 The conservation of the biodiversity of the agricultural system and the surrounding ecology including the preservation of natural habitat of wild plants and animals; | 3.7 | p | address as general principles | Y TAS 9000-part 1: เป็นหลักการที่ต้อง นำไปปฏิบัติ ไม่ได้ มองที่ activities แต่ มองที่ outcome | P: address as general principles |
| 4.2.2 Measures are employed to prevent land degradation, such as erosion and salinization. | 4.8 Pests, diseases and weeds shall be controlled by any one, or a combination, of the following measures: ... 5) Maintaining the ecosystems, for example, by making strip to prevent soil erosion, and through use of crop rotation; | 4.8 | p | soil salinization is not addressed | | P: soil salinization is not addressed |
| 4.2.3 Pollution of the environment by fertility inputs and practices is prevented. | 3.5 The prevention and avoidance of activities that cause environmental pollution; | 3.5 | p | address as general principles | Y TAS 9000-part 1: 3.5, Annex A1.3 | P: address as general principles |
| 4.2.4 Management systems ensure that water resources are used sustainably | -- | -- | n | not address | Y TAS 9000-part 1: 3.4 | N: not address |
| 4.2.5 Measures are employed to prevent pollution, and otherwise preserve water quality. | 3.5 The prevention and avoidance of activities that cause environmental pollution; | 3.5 | p | address as general principles | Y TAS 9000-part 1: 3.3 | P: address as general principles |
| 4.2.6 Any actions that negatively impact high conservation value areas are excluded from organic systems. | -- | -- | n | not address | P TAS 9000-part 1: 3.4 address as general principles | N: not address |
| 4.2.7 Use of synthetic coverings and mulches is restricted. | -- | -- | n | not address | | N: not address |
| 4.2.8 Stocking density management in animal production ensures sustainable land and water use. | 6.1.4 Stock densities for livestock shall be appropriate to stock size and rotation of area utilization with concern on soil fertility, too | 6.1 | y | -- | | Y: -- |

| Detailed objectives and general requirements to address them | Relevant parts of organic standards | Article number | assessment | comment by assessor | comment by stakeholders | final Assessment |
|--|--|----------------|------------|---------------------|--|------------------|
| | much grazing, surface destruction, sufficient feeding source, nutrients balance, stock health, and environmental impact. | | | | | |
| 4.2.9 Animal production systems use breeds suited to the region and the production method. | -- | -- | n | not address | Y TAS 9000-Part 1: 4.2.9 (TAS9000-part 2 annex A 1.1.1,1.1.2,4.1.1- 4.1.4) | Y: -- |
| 4.2.10 Bee races are adapted to the local environment and conditions. | -- | -- | n | not address | TAS 9000-Part 2: 8.5.2 | Y: -- |
| 4.3 Aquaculture | | | | | | |
| 4.3.1 Aquatic plants are managed in a manner that avoids any degradation of the production area or the surrounding ecosystem. | NOT APPLICABLE | | | | | |
| 4.3.2 measures are taken to prevent introduced or the cultivated stocks from escaping into the ecosystem. | NOT APPLICABLE | | | | | |
| 4.3.3 non--organic aquatic animal protein and oil may only be used if they derive from wild marine products harvested from verifiable sustainable sources or from by-products from fishery for human consumption | NOT APPLICABLE | | | | | |
| 4.3.4 The release of nutrients and waste into the aquatic ecosystem is minimized. | NOT APPLICABLE | | | | | |
| 4.3.5 production units are designed and managed to maintain water quality. | NOT APPLICABLE | | | | | |
| 4.4 Wild Collection | | | | | | |
| 4.4.1 Excludes from the system collection of any protected or endangered species. | -- | -- | n | not address | Y TAS 9000-Part 1: 4.11.2 | N: not address |

| Detailed objectives and general requirements to address them | Relevant parts of organic standards | Article number | assessment | comment by assessor | comment by stakeholders | final Assessment |
|--|---|-----------------|------------|-------------------------------|--|--|
| 5. Exclude certain unproven, unnatural and harmful technologies from the system. | | | | | | |
| 5.1 Genetically Modified Organisms | | | | | | |
| Organic production and processing management systems: | | | | | | |
| 5.1.1 preserve the genetic integrity of varieties and traditional ecotypes; | -- | -- | n | not address | N | N: not address |
| 5.1.2 exclude deliberate use or negligent introduction of genetically modified organisms (GMO) or their derivatives, except vaccines, in all stages of organic production and processing. | 3.10 Produce, products, and ingredients shall not be derived from genetic modification; | 3.1 | p | address as general principles | Y TAS 9000-part 1: 3.10,8.3, 5.4.1, 5.2.4 | P: address as general principles, negligent introduction is not addressed. |
| 5.2 Ionizing radiation | | | | | | |
| Organic management systems: | | | | | | |
| 5.2.1 exclude use of ionizing radiation. | 3.11 Products or ingredients of products shall not be irradiated. 7.1 The organic integrity of the produce or product shall be maintained throughout all steps in the production and processing chain. This is achieved by the use of techniques appropriate to the ingredients with careful processing methods, limiting the use of food additives and processing aids. Ionizing radiation shall not be used on organic products for the purpose of pest control, food preservation, elimination of pathogens, or sanitation. | 3.11 7.1 | y | -- | | Y: -- |
| 5.3 Breeding Techniques: | | | | | | |
| 5.3.1 use only breeding techniques consistent with organic production methods are used. This includes artificial insemination. 5.2.4-5 Hormonal induction of ovulation and birth, and embryo transfer techniques and cloning are excluded from the system. | 6.1.5 Livestock breeding shall be aimed at natural breeding, minimizing stress, preventing diseases, avoidance the use of chemicals, veterinary drugs including antibiotics, and livestock by-products such as meat and ground bones as raw materials for feedstuff except milk, and maintaining animal | 6.1 | y | -- | | Y: -- |

| Detailed objectives and general requirements to address them | Relevant parts of organic standards | Article number | assessment | comment by assessor | comment by stakeholders | final Assessment |
|--|---|----------------|------------|---------------------|--|--|
| | health and welfare. | | | | | |
| 5.3.2 In aquaculture, exclude from the system any use of artificially polyploid organisms or artificially produced monosex stock and synthetic hormones to artificially stimulate reproduction. | NOT APPLICABLE | | | | | |
| 6. Avoid pollution from surrounding environment | | | | | | |
| 6.1 Wild collection | | | | | | |
| 6.1.1 Wild collection areas are not compromised by treatment or environmental pollution. | -- | -- | n | not address | Y TAS 9000-part 1: 4.11.1 | P: environmental pollution of wild harvest area is not addressed |
| 6.2 Beekeeping | | | | | | |
| 6.2.1 In beekeeping systems, hive placement minimizes the risk of contamination. | 8.2 Hives site shall be placed in a certified organic area or other areas without prohibited substances being used and no risk of GMOs. | -- | -- | -- | | Y: -- |
| 6.3 Aquaculture | | | | | | |
| 6.3.1 In aquaculture, the production units have an appropriate distance from contamination sources and conventional aquaculture. | NOT APPLICABLE | | | | | |
| 7. Treat animals responsibly | | | | | | |
| 7.1 Living conditions | | | | | | |
| 7.1.1 Living conditions (including housing) provided to the animals: - afford them comfort and safety - allow them to exhibit natural behavior - give them freedom of movement - allow access, whenever weather allows, to open air, exercise areas and/ or, pasture, which include shade. | 6.1.3 Livestock production is one of agriculture activities related to land ecology whether physical and biological activity. Herbivores shall have access to pasture for grazing and all other animals shall have access to open-air exercise areas. The certification body may allow an exception if necessary such as stage of animal, weather conditions, or the case of managing the traditional farming systems with limited access to pasture. The producer shall particularly consider about the welfare of the | 6.1 | p | -- | | P: address only access to open air and as general principles |

| Detailed objectives and general requirements to address them | Relevant parts of organic standards | Article number | assessment | comment by assessor | comment by stakeholders | final Assessment |
|--|---|----------------|------------|---------------------|-------------------------|--|
| | animals. | | | | | |
| 7.1.2 Confinement of calves for veal production and of any animals in cages is excluded from the system. | n.a. | -- | -- | -- | | N: not address |
| 7.2 Physical Alterations | | | | | | |
| 7.2.1 Physical alterations are generally excluded from the system. - In beekeeping this includes clipping the wings of queen bees. - Standards may allow specific exemptions when good management practices are insufficient to ensure the health and welfare of the animal and/ or operator or when it is specifically required for meat quality. Physical alternations performed under exceptions employ measures to minimize suffering. | n.a. | -- | -- | -- | | -- no details given to make the assessment |
| 7.3 Breeds and Breeding | | | | | | |
| 7.3 1 Animal production systems use breeds that reproduce successfully under natural conditions and without routine human involvement. | 6.1.5 Livestock breeding shall be aimed at natural breeding, minimizing stress, preventing diseases, avoidance the use of chemicals, veterinary drugs including antibiotics, and livestock by-products such as meat and ground bones as raw materials for feedstuff except milk, and maintaining animal health and welfare. | 6.1 | -- | -- | | P: address as general principles |
| 7.4 Transport and Slaughter, and Honey Harvest | | | | | | |
| 7.4.1 Animal stress and suffering is avoided during the movement, handling and slaughter of animals - use of any injurious devices e.g. electric prods, and tranquilizers and stimulants is excluded from the system. | n.a. | -- | -- | -- | | -- no details given to make the assessment |
| 7.4.2 Aquatic vertebrates are stunned before slaughter. | NOT APPLICABLE | | | | | |
| 7.4.3 deliberate killing of bees during honey harvesting is excluded from the system. | 8.7.2 The destruction of bees as a method of harvesting of bee products is prohibited. | -- | -- | -- | | Y: -- |
| 8.1 Nutrition | | | | | | |

| Detailed objectives and general requirements to address them | Relevant parts of organic standards | Article number | assessment | comment by assessor | comment by stakeholders | final Assessment |
|---|---|----------------|------------|---|---|---|
| 8.1.1 Organic livestock systems provide animals with a diet that consists of high quality and nutritious organic feed. - Any use of non-organic feed is specified, is strictly limited to non-accessibility of organic feed and time limited. | 6.2.4 Requirements on feedstuffs, livestock health management, livestock management, recording, environmental management for production system of organic livestock species shall be complied with TAS 9000 Part 2, Thai Agricultural Standard on Organic Agriculture Part 2: Organic Livestock | | | no details given to make the assessment | P (TAS 9000-Part 2) 3.1, 3.3, 3.4 | P: animal diet does not address high quality and nutritious feed. |
| 8.1.2 Nutrition practices are consistent with the animals' natural needs <ul style="list-style-type: none"> - ncluded are feed rations that meet the nutritional and dietary requirements of the species e.g. access to roughage for ruminants. - Excluded are feeding slaughter products of the same species to all animals, any slaughter waste to ruminants, and all types of excrements. - There is a weaning period for young animals, which is based on the natural behavior of the species. | 6.2.4 Requirements on feedstuffs, livestock health management, livestock management, recording, environmental management for production system of organic livestock species shall be complied with TAS 9000 Part 2, Thai Agricultural Standard on Organic Agriculture Part 2: Organic Livestock | | | no details given to make the assessment | Y (TAS 9000-Part 2) 3.4, 3.5, 3.6.2, 3.7.2 | P: weaning period is not defined |
| Beekeeping: | | | | | | |
| 8.1.3 In beekeeping, supplementary feed is organic and is restricted to colony welfare. | 8.3.2 If the natural feed is under shortage due to unfavorable climatic circumstances, organically produced honey shall be used. However the certification body may permit the use of non-organically produced honey or sugar in a certain limit period of time. | -- | -- | -- | | P: conventional feeds are allowed if organic feeds are insufficient |
| 8.1.4 Harvesting methods ensure that there are sufficient food reserves left behind for the survival of the colony during the dormancy period. | 8.3.1 Harvesting shall be done in a manner that sufficient amount of feed is left for the colony to survive. | -- | -- | -- | | Y: -- |
| Aquaculture | | | | | | |
| 8.1.5 In aquaculture, Aquatic animals are fed predominantly organic feed. The use of non-organic feed is specified; it is strictly limited to non-accessibility of organic feed and time limited. | NOT APPLICABLE | | | | | |
| 8.2 Health Care | | | | | | |

| Detailed objectives and general requirements to address them | Relevant parts of organic standards | Article number | assessment | comment by assessor | comment by stakeholders | final Assessment |
|---|---|----------------|------------|---|--|---|
| 8.2.1 Health care practices follow the principle of positive health; the graduated approach of prevention, including appropriate vaccinations, then natural medicines and treatment, and finally if unavoidable, treatment with allopathic drugs. Where veterinary medicinal products are administered, conversion requirements apply. See section 3.2 3-3.2.5 for related information | 6.2.4 Requirements on feedstuffs, livestock health management, livestock management, recording, environmental management for production system of organic livestock species shall be complied with TAS 9000 Part 2, Thai Agricultural Standard on Organic Agriculture Part 2: Organic Livestock | | | no details given to make the assessment | Y (TAS 9000-Part 2) Section 4 | Y: -- |
| 8.2.2 Medical treatment considered necessary for the welfare of an animal is never withheld in order to maintain the organic status of the animal. Animals are not allowed to suffer for lack of treatment. | 6.2.4 Requirements on feedstuffs, livestock health management, livestock management, recording, environmental management for production system of organic livestock species shall be complied with TAS 9000 Part 2, Thai Agricultural Standard on Organic Agriculture Part 2: Organic Livestock | | | no details given to make the assessment | Y (TAS 9000-Part 2) 4.3.1, 4.3.3 | N: not address the withholding treatment to maintain organic status |
| Beekeeping: | | | | | | |
| 8.2.3 The health and welfare of bee colonies is primarily achieved through good management and hygienic practices. | n.a. | -- | -- | -- | | Y: imply in 8.6.1 |
| 8.2.4 When preventative health measures fail, veterinary medicinal products may be used provided that preference is first given to phyto-therapeutic and homeopathic treatments, and then: <ul style="list-style-type: none"> - lactic, formic, oxalic, acetic acid - sulfur - natural essential oils. | n.a. | -- | -- | -- | | P: no preference given |
| 8.2.5 Methods permitted for hive and honey comb disinfection are restricted to steam, direct flame , caustic soda and Bacillus thuringiensis. | n.a. | -- | -- | -- | | Y: -- |
| Aquaculture | | | | | | |
| 8.2.6 Health is promoted and disease controlled through preventive, system-based methods. Objectives and requirements for livestock that are relevant to aquatic organisms are included in the management system. | NOT APPLICABLE | | | | | |
| 8.2.7 Stocking densities do not compromise the | NOT APPLICABLE | | | | | |

| Detailed objectives and general requirements to address them | Relevant parts of organic standards | Article number | assessment | comment by assessor | comment by stakeholders | final Assessment |
|--|---|----------------|------------|-------------------------------|---|--|
| animals' welfare. | | | | | | |
| 8.2.8 Production units are designed and managed to maintain the health and natural behavior of the stock. | NOT APPLICABLE | | | | | |
| 9.1 Production | | | | | | |
| <i>Seeds and Seedlings</i> | | | | | | |
| 9.1.1 Organic practices are implemented along the entire production chain from propagation to final product including the production of seed and propagation materials wherever possible. | 3.8 Organic nature shall be maintained along the whole chain of production, processing, storage and distribution; | 3.8 | p | address as general principles | Y (TAS 9000-Part 1) 3.8,4.10,5.4,6.2.2 | Y: -- |
| 9.1.2 Seed and plant propagation material is of organic quality unless such seed and material is unavailable. | 4.10 Seeds and vegetative reproductive materials shall come from organic agriculture system except when an operator demonstrates that materials meeting the requirements are not available, materials coming from conventional sources may be allowed. The seeds and materials shall have never been treated with chemicals. If the untreated seeds and materials are not available, the chemical treated shall be removed properly before use, in this instance prior acceptance with the certification body or concerned competent authority shall be made. | 4.1 | y | -- | | Y: -- |
| 9.1.3 All substances used for treatment of all seed material are on the Indicative List of Substances for Organic Production and Processing in international organic standards or comply with the Criteria for these lists, unless treatment with other substances is legally required or unless seed not treated with these other substances is regionally unavailable. Exemptions are limited in time. | -- | -- | n | not address | Y (TAS 9000-Part 2) 4.10, annex A | N: not address |
| 9.1.4 Seedlings are of organic quality. | 4.10 Seeds and vegetative reproductive materials shall come from organic agriculture system ... | 4.1 | y | -- | | Y: seedlings are part of vegetative reproductive materials |
| <i>Parallel and Split Production</i> | | | | | | |

| Detailed objectives and general requirements to address them | Relevant parts of organic standards | Article number | assessment | comment by assessor | comment by stakeholders | final Assessment |
|--|---|----------------|------------|---------------------|------------------------------------|------------------|
| 9.1.5 The integrity of the organic farm unit is not compromised by the management of the non-organic operation. | -- | -- | n | not address | Y (TAS 9000-Part 2) 4.4 | N: not address |
| 9.1.6 The non-organic and organic parts and products of holdings with split or parallel production are completely and clearly separated, e.g. physical barriers, management practices, storage of inputs and products. | 4.4 In case that the whole farm is not converted to organic at one time, it may be done progressively. The holding and management system shall be split into units where planting on each unit shall be clearly distinguished. Organic produce shall be clearly separated from the produce from the area using chemicals. | 4.4 | y | -- | | Y: -- |
| Animal Production | | | | | | |
| 9.1.7 The organic integrity of animals is maintained during movement, handling and slaughter. | -- | -- | n | not address | Y (TAS 9000-Part 1) 7.2 | N: not address |
| 9.1.8 In aquaculture, all components of agricultural origin are organic. | NOT APPLICABLE | | | | | |
| 9.2 Processing and Handling | | | | | | |
| 9.2.1 Organic products are processed separately in time and/or place from non-organic products. | -- | -- | n | not address | Y (TAS 9000-Part 1) 7.1, 7.2 | N: not address |
| 9.2.2 Measures are taken to prevent co-mingling of organic products with non-organic products in processing, packaging, storage and transport. | 7.2 Organic produce and products during handlings, transportation, processing, or packaging shall be clearly indicated and separated from the non-organic produce or products. There shall be a managing system to prevent the contamination from the substances prohibited to use in organic agriculture. 7.6.1.1 Organic products shall be protected at all times from confusing with non-organic products; and | 7.2 | y | -- | | Y: -- |

| Detailed objectives and general requirements to address them | Relevant parts of organic standards | Article number | assessment | comment by assessor | comment by stakeholders | final Assessment |
|--|--|----------------------|------------|---|---|--|
| 9.2.3 Organic processed products are made from organic ingredients except for when they are not available. Use of non-organic ingredients is time-limited. - Use of the same ingredient in organic and non-organic quality is excluded from the system. | 8.2.2 All the ingredients of the product from agricultural origin shall come from organic production in accordance with the requirements of Sections 3, 4, 5, and 6; 8.2.4 The same ingredients shall not be derived from organic and non-organic origin; | 8.2 | y | -- | | Y: -- |
| 9.2.4 Use of any substance primarily to correct losses of properties during processing except where required by law or strongly recommended by authorities is excluded from the system | 8.2.2 All the ingredients of the product from agricultural origin shall come from organic production in accordance with the requirements of Sections 3, 4, 5, and 6; Table A.5 Ingredients of non-agricultural origin 5. Minerals including trace - Vitamins, fatty acids and essential amino acids, and elements, other nitrogen compounds - Substances are allowed where necessary and in accordance with laws concerned food products | 8.2 Table A.5 | n | substances can be used if deem necessary by processor | P (TAS 9000-Part 1) 9.1,9.2.3 กำหนดเป็นแนวทางปฏิบัติ แต่ไม่ได้ระบุห้ามสารเคมี to correct loses of Properties โดยตรง | N: substances can be used if deem necessary by processor and the use is subjected to relevant laws |
| 9.2.5 Filtration techniques used in organic processing do not chemically react with or modify the product at the molecular level. | -- | -- | n | not address | P TAS 9000-part 1: 7.4.1 | N: not address |
| 9.2.6 Management systems for cleaning and disinfecting surfaces, machinery and processing facilities are in place and they prevent contamination of organic product | -- | -- | n | not address | P TAS 9000-part 1: 7.4.3, annex A7 | N: not address |
| 9.2.7 During processing and handling organic products are protected from pests and diseases without compromising the organic integrity of the product. | 7.3.1 Preventative methods, such as disruption and elimination of pest habitat and access to facilities, shall be the primary mean of pest management; | 7.3 | y | -- | | Y: -- |
| 9.2.8 Pests are managed according to a hierarchy of practices starting with prevention, and then physical, mechanical, biological methods and substances on Lists international organic standards or that comply with the Criteria for these lists. | 7.3.2 If preventative methods are inadequate, the first choice for pest control should be mechanical/physical and biological methods; 7.3.3 If mechanical/physical and biological methods are inadequate for pest control, pesticide substances appearing in Annex A Tables A.3 and A.4 or other substances | 7.3 | y | -- | | Y: -- |

| Detailed objectives and general requirements to address them | Relevant parts of organic standards | Article number | assessment | comment by assessor | comment by stakeholders | final Assessment |
|--|--|----------------|------------|--|--|---|
| | allowed for use by a competent authority in accordance with Section 9 of this standard may be used provided that contact with organic products is prevented. | | | | | |
| 9.2.9 Packaging and storage/transportation containers do not contaminate the organic product they contain. | 7.6.1 The organic integrity of the produce or product shall be maintained during storage, transportation and handlings by using of the following precautions: 7.6.1.1 Organic products shall be protected at all times from confusing with non-organic products; and 7.6.1.2 Organic products shall be protected at all times from contact with materials and substances prohibited to use in organic farming and handlings. | 7.6 | y | -- | | Y: -- |
| 10. Provide organic identity in the supply chain. | | | | | | |
| 10.1 Labeling | | | | | | |
| 10.1.1 Labeling clearly identifies organic products and provides relevant information for consumers to make informed, conscious choices and to avoid misleading them | 8.1 Organic produce and products shall have the following details on the label and shall be legible, clearly stated, and truthful, or not deceptive. | 8.1 | y | -- | | Y: -- |
| 10.1.2 Products labeled as “organic” or “in-conversion”, or an equivalent term (e.g. biologic or ecological), comply with the applicable organic standards. | 8.2.2 All the ingredients of the product from agricultural origin shall come from organic production in accordance with the requirements of Sections 3, 4, 5, and 6; | 8.2 | y | -- | | Y: -- |
| 10.1.3 Full disclosure of ingredients is provided, including whether or not they are organic. | 8.4.1 The term “organic” shall be legible on the label. Organic ingredients shall be declared by expressing in the estimated percentage of all ingredients including food additives but excluding salt and water. 8.4.2 The type and the amount of ingredients shall be percentage by weight in descending order. | 8.4 | n | not full disclosure is required nor indication whether they are organic or not | P (TAS 9000-Part 1) 8.1.2, 8.4.2, | P: require ingredient list but not necessary not full disclosure nor indication whether they are organic or not |
| 10.1.4 Labels identify the person or company legally responsible for the product and the body that assures conformity to the applicable organic standard | 8.1 Organic produce and products shall have the following details on the label and shall be legible, clearly stated, and truthful, or not deceptive. ... | 8.1 | y | -- | | Y: -- |

| Detailed objectives and general requirements to address them | Relevant parts of organic standards | Article number | assessment | comment by assessor | comment by stakeholders | final Assessment |
|---|--|----------------|------------|---------------------|-------------------------|------------------|
| | <p>8.1.5 The name and address of the producer, manufacturer, packer or distributor shall be declared. The registered trademark shall also be declared;</p> <p>8.2.6 Produce or product which has been certified by the certification body shall have the label with name and/or the code number of the certification.</p> | 8.2 | | | | |
| 10.1.5 Processed products labeled as “organic” contain at least 95% organic ingredients (by weight). | 8.3 Products labelled with certification mark as “organic” shall have no less than 95% by weight of all ingredients in final products excluding water and salt. The non-organic ingredients shall not be genetically modified or irradiated or treated with processing aid not being listed in Annex A, Tables A.5 and A.6. | 8.3 | y | -- | | Y: -- |
| 10.1.6 Labels for in-conversion products or similar terms are clearly distinguishable from labels for organic products. | 8.5 When produce or product inspected by certification body is in accordance with organic agriculture requirements specified in this standard and complied with the requirements in Section 8.2, the phrase “Produce or product in transition to organic” may be allowed on the label of the produce or product. However, certification mark which cause misleading as certified organic produce or product shall not be used. | 8.5 | y | -- | | Y: -- |