GUIDELINES FOR ORGANIC FOOD PRODUCTION

ISLANDS ORGANIC
PRODUCERS ASSOCIATION

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Islands Organic Producers Association (IOPA)

These guidelines were developed in 1990 thanks to the leadership of the following members:
Sandra McConnell, Christoph Altemueller, Cassandra Bassett, Anne de Cosson, Terry Gay and Peter Johnston. They were amended in 1991, 1993, 1998, 1999, 2003, 2005 and 2014. This edition has been updated to be used in conjunction with the Canadian Organic Standards (National Standard of Canada – Organic Production Systems – General Principles and Management Standards CAN/CGSB-32.310-2015 and Permitted Substances List CAN/CGSB-32.311-2015.
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British Columbia
Certified Organic

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Part 1.

1.1 Introduction

The Islands Organic Producers Association (IOPA) is a non-profit association of organic growers, producers and processors. IOPA is a Society incorporated under the British Columbia Society Act and an organic certifying body accredited by the Certified Organic Associations of British Columbia (COABC). The COABC is an umbrella association for certification bodies which provides certification accreditation and leadership in the development of organic food production throughout British Columbia and Canada. The COABC was created in 1993 under the Agri-Food Choice and Quality Act of British Columbia to administer the BC Certified Organic Program, to ensure program credibility, facilitate domestic and international trade, and to promote the overall growth of the organic food community in BC. IOPA must comply with all aspects of the BC Certified Organic Program and must allow the COABC to audit its records pertaining to this program for compliance with the requirements of the Act and BC Certified Organic Program criteria. IOPA shall not have a direct financial interest in the affairs of any of its members. IOPA shall notify COABC any time a change is made to it's application of either the policy or standards in the BC Certified Organic Program. Membership in IOPA shall be open to any person wishing to be certified under this program, provided that their operation is located on Vancouver Island or the adjacent islands.

These guidelines are to be used in conjunction with the Canadian Organic Standards (COS) and COABC Book 2 as required in the BC Certified Organic Program. In certain areas, IOPA has adopted rules which are more restrictive. These differences are clearly noted and IOPA members must follow these rules.

The guidelines are in three parts. Part 1 contains the guiding principles and philosophies of IOPA as well as general commentary on organic management practices. Part 2 contains an overview of the operational procedures of IOPA. Part 3 contains rules regarding specific areas of production where IOPA enforces additional and stricter rules than COS's minimum standards. The specific provisions of Part 3 reference the corresponding COS rule.

1.1.2 IOPA Statement of Intent

- To be a regional certification body with powers to regulate and certify organic producers in accordance with the BC Certified Organic Program Standards.
- To maintain regional guidelines that outline approved standards for organic farming.

- To establish a certification committee for evaluating enterprises' compliance with the BC Certified Organic Program.
- To administer a fair and strict process to assess the operations of organic producers in order to assign "certified organic" or "transitional to certified organic" status to those who qualify.
- To encourage and facilitate the education of both farmers and consumers in organic practices.
- To establish a cooperative relationship between IOPA and organic producers and amongst the producers themselves.

1.1.3 Grower's Responsibility

These guidelines should not be construed as technical documents, nor do they provide comprehensive instructions or immutable laws. Reliance on them can in no way ensure success or prevent failure. Any and all actions taken or omitted by the grower must at all times be based on her/his judgment. IOPA cannot accept any responsibility for the success or failure of any agricultural enterprise, or any other consequences of providing or not providing certification.

1.2 Philosophy

History: All traditional farming prior to the 18th Century, was organic. Inorganic methods were recently developed during the industrial revolution due to advances in biochemistry, engineering, mechanization and manufacturing.

Industrial agriculture refers to farming systems which include the use of synthetic chemical fertilizers, pesticides, herbicides and other continual inputs, genetically modified organisms, concentrated animal feeding operations, intensive tillage, or concentrated monoculture production. In industrial agriculture, soil is often viewed as a bank; with the only concern being its' ability to receive, hold and release nutrients to the plants.

Although all farming is an intervention in the natural world, a major distinction that sets organic farming apart from industrial agriculture is that organic farming aims to maintain as healthy and as biologically complex a soil environment as possible. Organic soil is alive with millions of microorganisms and long-term soil management is a focus of organic farming.

The renewed belief in the concept and philosophy of organic agriculture began in the early part of the twentieth century as those that farmed the land believed in **soil**. These

pioneering farmers began avoiding synthetic fertilizers and pesticides as they became increasingly concerned that they were causing imbalances in plant nutrition and harm to the soil biology. They saw the soil biology and more specifically the humus of the soil as being crucial to the long-term vitality of their farming systems.

Organic farming pioneers were committed to sustainability through soil regeneration and consciously avoided the exploitation of natural resources. Sir Albert Howard has often been referred to as the father of modern organic agriculture. He was the first to apply modern scientific knowledge and methods to traditional agriculture. Howard believed that the organic method was a means for restoring and sustaining soil health, thereby reducing and even eliminating most pest problems. He also saw human health as depending on "a chain of health that begins in the soil". "Feed the soil" was a simple way to express soil management within the 'soil food web'; which is the community of organisms living all or part of their lives in the soil. It describes a complex living system in the soil and how it interacts with the environment, plants, and animals.

Present day : Current thinking on organic farming is still motivated by a desire for long-term vitality and sustainability of our soil and our land. Environmental degradation is widely recognized as the most serious threat to life on our planet. Soil structure and fertility have been seriously degraded in most agricultural regions of the world. Food crops and domestic animals alike no longer possess their former vitality; and poisonous residues on crops and animal products are viewed worldwide with increasing concern.

To arrest and reverse this trend, it is the work of organic farmers to develop sound, long-term ecological relationships with the land. It is the focus of organic agriculture to develop and maintain farms that can produce wholesome, health-sustaining and nutritious food for humans and other animals alike. This must be done through responsible stewardship of the land which recognizes the complex needs for healthy, balanced ecosystems. Organic agriculture is both a philosophy and a way of farming. The *International Federation of Organic Agriculture Movements* define Organic Agriculture as:

"Organic Agriculture is a production system that sustains the health of ***soils, ecosystems*** *and* ***people****. It* ***relies on ecological processes, biodiversity and cycles adapted to local conditions****, rather than the use of inputs with adverse effects. Organic Agriculture combines* ***tradition, innovation*** *and* ***science*** *to benefit the shared environment and promote* ***fair relationships*** *and a good* ***quality of life*** *for all involved."*

1.3 IOPA Guiding Principles

1.3.1 Farm Environment

General

Organic farming strives to be as self-reliant as possible, endeavoring to produce sufficient nutrients on the farm to grow the chosen crops. Although it is challenging to achieve this goal, it serves as a reminder that organic farming is more than substitution of synthetic fertilizers with natural or organic ones. Below are more specific examples of these efforts.

Stewardship

Vancouver Island and the Gulf Islands are home to a great diversity of plant and animal species. Unfortunately, numerous species are at risk of extinction (particularly in southern Vancouver Island) with agriculture as a significant cause of habitat destruction. The introduction of invasive species is one of the most widespread disturbance factors in sensitive ecosystems. As organic growers, we consider stewardship to be of the utmost importance in maintaining a healthy and sustainable system of agriculture. By encouraging native species to thrive on our farms we can improve diversity and help to maintain function of the regional ecosystems that we all depend on. Involving community members in stewardship projects through participation and education is also a valuable contribution.

Animals

Incorporation of an appropriate number and type of animals into the farm ecosystem is beneficial. This can reduce or eliminate the farm's reliance on outside fertilizers. Additional commentary on animals is provided in the organic livestock management section below.

Forage Crops

On-farm production of animal feed and forage represents a significant step in achieving a closed loop ecosystem. Soil to plant, plant to animal, dung to soil, is a closed circle. This principle will produce increased soil fertility and improved health and vitality in both plants and animals. Outside feed is reduced or eliminated.

Buffer Zones

Buffer zones surrounding the farm should ideally be strips of land planted in a mix of deciduous and coniferous trees. Such buffers could be very effective to shield the farm against spray drift and other damaging environmental influences. Where treed buffer zones are not feasible, planting of sensitive indicator crops (legumes) can serve a useful

purpose. They can absorb possible spray drift and indicate the extent of contamination. These buffer zones also provide biodiversity that supports the farm environment.

Hedgerows

The benefits of enclosing individual fields with hedgerows cannot be overstated. They provide a far better investment for the farm than do fences. Fences deteriorate, hedgerows become denser and stronger with age. Hedgerows provide windbreaks and shade for animals, as well as a multitude of health-supporting foliage and herbs. They are excellent habitats for birds, which clean up insect pests in fields, gardens, and orchards. They are also effective in preventing soil erosion and retard the lowering of groundwater tables. (Much the same can be said in favour of tree-covered buffer strips.) Good barrier bushes and trees include ocean spray, nootka rose, red osier dogwood, red flowering currant, black hawthorn, crab-apple, wild plum, hazelnut, honeysuckle and many others. Species should be selected to suit the locale, remembering that variety can increase habitat value. Hedgerows are valuable for the long-term resilience of your farm.

Composting of Waste Materials

All organic wastes and by-products from within the farm (weeds, grass clippings, old hay and straw, leaves, animal manures, feathers and wood ashes from untreated woods, etc.) should be properly composted. Compost is an invaluable resource for your farm's nutrient needs.

If plastic is used to cover compost it should be in good condition to avoid the breakdown from polluting compost or soil. Woven tarps or coloured plastic sheets could have an adverse affect on compost and soil.

Farm Environments

As much as possible, the farm environment should be kept free of contaminants. This will minimize the possibility of accidental contamination of growing areas or animal habitat. Many household chemicals (cleaning agents, drain openers, etc.) end up in the farm's septic tank and from there enter the soil and groundwater via the leach field. Likewise, equipment leaks should be contained and unnecessary idling of motor vehicles and farm machinery should be minimized. The use of environmentally friendly products is encouraged. Recycling should be practiced wherever possible. Farm buildings should not be constructed from wood treated with noxious chemicals.

Fence Posts

Fence posts are an integral component of all farm environments. Untreated wood, steel and concrete posts are environmentally acceptable without reservation. Because of their utility, aesthetic appeal and economy, wood posts are most widely employed, but

without chemical treatment they will deteriorate in a relatively short time. Treated fence posts can release chemicals into the soil or contaminate plants through direct contact, and therefore must be regarded with caution. Specific rules regarding the use of treated wood fence posts are in Part 3 of these guidelines. Charring untreated wood posts is an effective protection against rot and will extend post life for 15 years or longer. A principle of organic agriculture is to enhance the fertility and microbiological life in the soil. When we use any bactericides, fungicides, etc. to stop fence posts from rotting, we violate that principle.

Genetic engineering

Genetically engineered (GE) crops are incompatible with organic agriculture. GE crops are part of an ecologically unsustainable mode of chemical-dependent mono-cropping. Most commercial GE crops are engineered to be resistant to chemical herbicides or engineered to include BT-toxins which kill insect and predators. GE crops pose many hazards. They have already spawned herbicide-tolerant weeds and led to an increase in BT-resistant insect pests. GE BT-toxins are fatal to beneficial insects such as bees, and pollen from BT-maize has proven deadly to monarch butterflies. GE DNA can give rise to new viruses and bacteria that can cause diseases and spread antibiotic and drug resistances among the pathogens. Health risks to humans and other animals are potentially significant. As a certifying body, we adopt the precautionary principle for new technologies of this kind.

1.3.2 Tillage

The primary purposes of tillage are to establish seedbeds that are conducive to crop growth, to control weeds, and to incorporate organic matter (crop residues, fertilizers, etc.) into the soil. Tillage also creates a soil environment that promotes the free movement of air (carbon dioxide, oxygen, and nitrogen) and water through the soil, and in the presence of aerobic bacteria and other soil life forms, the decay or digestion of organic matter within the soil.

However, excessive tillage can create problems by damaging soil structure and microorganisms. The loss of intricate microscopic pathways within the soil that hold oxygen causes compaction and an increased dependence upon tillage. Effective tillage systems should minimize damage to soil life thereby reducing the possibility of compaction and erosion and encouraging microorganisms to increase soil fertility. Farming practices that minimize or eliminate tillage, such as mowing, grazing, mulching, strategic cover crop implementation or use of permaculture principles are excellent alternatives.

1.3.3 Rotations

Continued production of a single type of crop in the same field depletes nutrients and creates conditions favourable to the growth of pests and disease. Perennials are a possible exception, especially as advances in the sciences of permaculture and polyculture create new possibilities for creating and maintaining variety and diversity in perennial systems. The rotation of crops has many positive effects, including weed control; disruption of pest and disease cycles; and improvement of nutrient levels, tilth, and soil organic matter content. Rotation plans can include:

- alternation of sod and row crops
- nitrogen fixing crops
- green manure crops
- cover, nurse and catch crops
- deep rooting crops
- alternation of heavy and light feeders
- plants with allelopathic or mineral accumulation properties
- companion planting or interplanting
- crops which provide wind protection for vulnerable crops (e.g. fava beans sown upwind from onions)

Crop rotations are an essential part of any organic production system. The rotation plan itself is a useful document in the certification process.

1.3.4 Manure Management

Properly utilized, animal manure is one of the most beneficial inputs in organic food production. A farm with livestock can be self-sustaining far more readily than one without. However, many of the beneficial effects of manure can be wasted by improper management. Acceptable application of raw manure depends on its origin, soil temperature, soil organic matter content, soil type, moisture, quantity and quality of soil organisms, and provision for a sufficient digestion period.

The full potential of manure as a biological activator can be achieved by aerobic digestion (high heat) or controlled fermentation (low heat). Both procedures, called composting, stabilize the nutrients in the manure by blending it with other organic materials in a controlled humus-producing process (which is cost-effective to farmers). Composting is particularly important for manures brought in from off-farm.

The composting of liquid manure (the product of slurry systems) is much more difficult. Slurry can be mixed with dry organic materials for composting or aerated with an additional carbon source to create a more stable, biologically active product.

Please also see the Manure section in Part 3.

1.3.5 Soil Amendments, Fertilizers and Growth Promoters

In an ecological soil management system, most soil amendments are used to supplement the delivery of nutrients to the plant. The use of soluble minerals (as in industrial agriculture) to feed the plant directly, can unbalance plant nutrition and damage soil health. Although it is often necessary to add minerals to a depleted soil, such mineralization must be managed so that biological cycles are enhanced and not short-circuited. The use of mineral fertilizers must promote the goal of soil health, not just maximum production. Decisions on regulated fertilizers must be based on ecological need within the context of a long- term farm plan.
Specific information on different amendments is provided in Part 3.

1.3.6 Soil Fertility: Evaluation and Monitoring

Organic farmers should use a variety of methods to assess soil fertility. Soil testing is one of these methods. Soil and tissue testing can be of assistance because it provides information on soil fertility and crop quality. The use of these tests over a period of years increases the accuracy of interpretation and can show the general direction of a soil management program. Good soil tests will indicate various mineral levels, organic matter content, and pH level if based on a properly collected, representative sample of soil. Soil audits, which are more comprehensive, will also measure cation exchange capacity, certain mineral ratios, and the percent of true humus present in the soil. Because soil testing has not been standardized, the analytical procedures used in laboratories can differ. Not only may testing methods vary, but the conceptual organization and interpretation of the data can vary. Despite controversy about testing procedures and interpretation philosophies, most reputable laboratories combine the use of BCSR analysis and SLAN analysis with appropriate crop response data when making recommendations for soil fertility management. (The BCSR or Basic Cation Saturation Ratios method measures the balance of cations stored in the soil and is used by most private soil audit laboratories. The SLAN or Sufficient Level of Available Nutrients test indicates gross amounts of soluble major nutrients and is used most frequently by government and university laboratories.)
Tissue analysis can determine mineral levels and ratios in growing plants. If adequate parameters have been established for a crop, such analysis can indicate crop quality and illustrate the relationship between plant nutrient uptake and soil mineral levels. Deficiency symptoms in sensitive crops are also important indicators.
Scientific methods for testing soil microbial levels, such as paper chromatography, radiorespirometry, dehydrogenase activity and bio-assays are becoming more readily available. They will help quantify and may shed new light on the heretofore elusive criterion of "biological activity."

1.3.7 Organic Crop Management

Sound ecological soil management is essential to the prevention of crop management problems. Soil health leads to well-nourished, healthy plants. It is generally accepted that well nourished plants are more resistant to pests and diseases. The careful selection of crops and plant varieties complements sound ecological soil management practices. Choices should be appropriate to the soil and the regional climate to insure optimum crop success.

Seeds

Seed propagation is a fundamental component of organic agriculture. It safeguards the vitality of valued varieties and promotes biodiversity. Organically produced seed should be used whenever possible but if varieties are not commercially available non-organically produced seed may be used as long as it is neither genetically engineered, nor treated with synthetic fungicides or pesticides. Growers must be able to demonstrate they have made efforts to locate an organic source of the variety they require.

Irrigation

In many areas, there is legitimate concern about the source and possible contamination of irrigation water. High levels of nitrates, chlorides, selenium and boron can be carried in such water, and its excessive use can salinize the soil. In areas where irrigation is essential to crop production, ongoing analysis of water quality and soil salinization is essential. Signs of soil salinization should indicate the need for an immediate change in agricultural management practices.

Irrigation water should be monitored to ensure it is not contaminated with prohibited substances or unacceptable levels of micro-organisms that are a concern for food safety.

Weed Control

Control of weeds can be among the most difficult parts of an organic system. Prevention is always preferable, but when a crop is endangered by weed competition, effective action is required. Mulches are commonly used by organic producers, yet can have serious shortcomings: hay mulches may carry weed seeds; recycled newspaper having coloured inks may contain heavy metal contaminants; and there is insufficient information on the effect of plastic mulch breakdown products on the soil system, as well as strong objection to their intensive reliance on a non-renewable petroleum resource.

Pest Control

Prevention is the first line of defense in pest infestations. Insect pests are generally a symptom of ecological imbalance. Prevention of such imbalance should always be our first concern. When planning production schedules and the location/size of plantings, and choosing crops/varieties and soil management practices, pest prevention should be high on the list of grower concerns. When preventive measures prove inadequate, those methods of control having the lowest ecological impact should be a grower's first choice.

All biocidal materials, no matter how innocuous-seeming, should be handled with caution. Many natural insecticides, such as pyrethrum, rotenone, sabadilla and nicotine, are broad-spectrum and highly toxic. Although widely accepted because of their natural origin and swift decomposition, they are often over-used and pose a danger to soil organisms and wildlife, as well as to the humans using them. Pest-specific bacterial and viral diseases have been reported to have adverse effects on soil organisms and humans, and there is concern that over-use will create resistant populations. Petroleum distillates that function as carriers or synergists, such as xylene, are commonly used in conjunction with natural botanical and biocidal insecticides. These additives are not desirable in an ecological system. However, they may reduce the amounts of restricted materials needed for effective control. Traps containing regulated pesticides may be authorized by the certification committee, provided that their contents do not contaminate the environment.

Disease Control

The preventive measures detailed under pest control are also appropriate for the management of disease problems. In greenhouse environments, particularly, proper control of environmental factors such as ventilation, humidity and temperature will reduce susceptibility to disease. Relatively mild materials such as copper and sulfur-based fungicides are often used in ecological systems, but can be toxic to humans and can accumulate in the soil, posing a threat to soil organisms.

Post-Harvest Handling

Harvest, storage, conditions of transport, and market preparation procedures that ensure maximum freshness and nutritional quality of food products are desired. Balanced mineral nutrition of crops, combined with specific supplemental nutrients (such as calcium), will reduce or eliminate many produce post-harvesting disorders and can reduce drying requirements for field crops. The avoidance of soil management practices and production schedules that may contribute to excessive nitrate accumulation in certain crops is important, as this can have a negative effect of storage ability. Leafy vegetables in particular may concentrate nitrates under low light conditions, even without excessive nitrate fertilization.

1.3.8. Organic Livestock Management

Certified organic animal products can only result from management practices which are based on an understanding of livestock as intrinsically valuable beings deserving of compassion and humane treatment. Inclusion of animals on organic farms can contribute substantially to the health and well-being of the overall closed loop farm ecosystem. Thus, the animals not only represent the means for production of meat and other animal products, but also can reduce or eliminate the need for outside fertilizers and aid in the building and maintenance of a healthy, humus-rich soil.

Within the context of animal husbandry, livestock should be provided with:

- freedom from hunger and thirst – by ready access to fresh water and a diet to maintain full health and vigor
- freedom from discomfort - by providing an appropriate environment including shelter and a comfortable resting area
- freedom from pain, injury or disease – by prevention or rapid diagnosis and treatment of disease, as well as humane slaughter practices
- freedom to express normal behaviour - by providing sufficient space, proper facilities (including dust baths) and company of the animal's own kind
- freedom from fear and distress – by ensuring conditions and treatment which minimize mental suffering.

Livestock of all ages shall be given clean, fresh water on demand. The main water source shall be tested initially for potential livestock toxins, for example, heavy metals, ions and bacteria, according to livestock drinking water quality guidelines. Thereafter, the water source shall be tested annually for bacterial contamination. If colony forming unit (CFU) levels are higher than 100/100 mL, remedial action shall be taken.

Please see part 3 and Canadian Organic Standards (COS) for specific rules.

Part 2 - Certification Procedure

2.1. General

The information provided in this part is an overview only. Please contact the administrator if more specific information is required and to obtain additional information such as application deadline dates and forms.
In the administration of its certification program IOPA's sole responsibility is to ensure, as far as is possible, that the products marketed by its certified members are produced in conformance with the regulations contained in primarily 4 documents:

1. IOPA Guidelines for Organic Food Production, 11th edition
2. British Columbia Certified Organic Production Operation Policies and Management Standards Version 11, Book 2 (COABC Book 2) and

The Canadian Organic Standards (COS) which include:

3. National Standards of Canada – Organic Production Systems – General Principles and Management Standards CAN/CGSB-32.310-2015
4. National Standards of Canada – Organic Production Systems – Permitted Substances List CAN/CGSB-32.311-2015 (PSL)

All members of IOPA, will receive free digital copies of the IOPA Guidelines, COABC Book 2 and COS. Physical copies are available, upon request, for a nominal charge (covering photocopying, postage etc.).

In providing certification service, IOPA places itself between the producer and the consumer - a position of responsibility and trust. IOPA is committed to fulfill its duties and responsibilities with integrity, using a thorough, well-documented, open and fair program. However, IOPA does not have control over day-to-day operations of its members' farms, nor can it provide environmental protection or quality control. Thus, ultimate responsibility for the integrity and quality of products rests where it rightfully belongs - with the individual member. It is for this reason that IOPA requires identification of the farm and the producer in conjunction with every use of its name and certification status.

The principal tools relied upon to accomplish this task include:

a) Careful evaluation of a comprehensive farm questionnaire submitted with the initial application for certification.
b) Requiring all members to renew their application annually; detail any significant changes made to their operation; and report on their compliance with any requirements made by the Certification Committee.

c) Annual inspections by an International Organic Inspectors Association (IOIA) member Verification Officer (VO), to verify all information provided in the application questionnaire or renewal; and to observe the farm environment and management practices.
d) Evaluation of VO inspection reports, farm records and supporting documents by a Certification Committee (CC) made up of individuals with no financial or direct interest in the operation under consideration.
e) A process providing for fact-finding in the event of suspected or reported violations of the guidelines, including remedial powers if violations have in fact occurred.

Since IOPA has no interest other than verification of compliance with these guidelines, COABC Book 2 and the COS, producers will be under no obligation to provide financial records, or to disclose any details of a financial nature. However, it is the responsibility of the applicant to furnish sufficient documentation, and, the members of a certification body enrolled in the BC Certified Organic certification program must allow verification officers:

a) Access, at reasonable times, to their premises and records; both organic and non-organic portions of an enterprise; and
b) To sample soil, water, and plant, animal tissue or other related products or inputs at the enterprise and deliver, as the CB directs, such samples for analysis.

IOPA will consider applications for organic certification only from its own members, within the designated bioregion of Vancouver Island and surrounding islands, who must be in good standing at the time the application is made. Whole farms, not individual fields, will be the basic unit of organic certification. However, in practice farms are often brought under organic management on a field by-field basis, and certification will be available for those parts that meet the standards.
Products certified by IOPA may be sold in BC as Certified Organic.

2.2. Procedures

IOPA procedures, outlined below, are subject to on-going review and improvement and are therefore subject to change.

2.2.1. New Applicants:

New applications must be made on the prescribed forms and with all the required supporting documentation and must include the full application fee as listed on the Application form.

New applicants are required to complete and submit an Application for IOPA Organic Certification form, Input/output form and a New Producer Questionnaire. Additional forms are required for certifying Livestock, Poultry or Processing facilities. All documents are available on our website (www.iopa.ca) or by contacting the administrator.

2.2.2 Renewing Members:

All producers must re-apply for status annually. IOPA will provide renewal applications on the prescribed forms and other necessary information to its members. It is the responsibility of the applicant to ensure that each year's application is comprehensive on its own, without reference to previous documents. Producers must ensure that their renewal contains sufficient information for the CC to make an informed decision and that all supporting materials are returned by the application deadline date. If the CC has made requirements of the producer, these must be addressed in the renewal forms provided.

Applications and renewals are due annually at the time of the IOPA AGM, usually the end of February. Late applications may delay certification.

2.2.3 Application Processing

a) All application packages received by the administrator will be serially numbered and processed promptly. The administrator will review the application package to ensure that it is substantively complete and will contact the applicant for additional documentation if necessary.
b) Processed applications will be assigned to a Verification Officer (VO). The VO will contact the applicant to arrange the inspection on a mutually convenient date. During each farm visit the VO will verify information provided on the application form, observe operation and management practices, and review appropriate records. A farm inspection report will be completed and signed by the VO. A copy of this report will be given to the applicant as soon as possible.
c) During the next meeting of the CC, VO inspection reports and application documents will be reviewed. The CC will provide comments or required actions regarding the practices or operation and these will be forwarded to the producer by the administrator. The CC will assign a status to each producer. (The committee may refuse to do so in unusual circumstances.)

2.2.4 Length of Transition Period to Certified Organic Status

COABC Book 2- 4.1.2 and CAN/CGSB-32.310-2015: 4, 6.2, 6.3

Transition is defined as the time between the start of organic management and Certified Organic Status being awarded.

Transition time begins when an application and membership fee are submitted to IOPA and an organic management plan is put into action. At this point, the IOPA guidelines, COABC Book 2 and the COS are being complied with and documented.

Applicant must submit a Land Use History Affidavit, detailing the lands uses and inputs for at least 3 years prior to the application date, in order to establish the date of the last use of any prohibited inputs.

Transition time is a minimum of 36 months from the date of the last application of prohibited substances.

If no prohibited substances have been input within the last 3 years, the transition time will be a minimum of 15 months and will include the completion of 2 Verification Officer (VO) inspections and reports to ensure organic management practices are in compliance with IOPA guidelines, COABC Book 2 and the COS.

The Certification Committee (CC) may require, at their discretion, a transition period in excess of 36 months. The CC will consider the nature of prohibited substances applied, the land conditions, management practices and other relevant factors; and may instruct the applicant to have soil and/or leaf analysis tests done.

Under severe circumstances, such as in contaminated industrial sites, urban sites lacking appropriate buffer distances from high-risk sources of contamination, etc., some land may never become suitable for organic production.

After completion of at least 12 months in transition and at least one inspection, the applicant may request a letter from the CC affirming their enrollment in the certification program, date of eligibility for Certified Organic Status and confirmation that their management practices are compliant with IOPA Guidelines, COABC Book 2 and the COS.

Regional certification can be transferred from any other certification body in the BC Organic Program. Operators from certification bodies outside of the BC Certified

Organic Program must be inspected before a certificate is issued. In these cases, a transition period is not required.

2.2.5 Certificates and Certification Status

Status is awarded by the Certification Committee (CC) and can be revoked by IOPA at any time. Producers awarded Certified Organic Status will be provided with an annual certificate. The certificate remains valid until a renewal certificate is issued or the certification body revokes it. Provided a renewal application is received by the Certification Body before the expiration of the previous certificate; and all other policies and standards have been met, the certificate will be renewed. Certificates issued by IOPA remain the property of IOPA and must be returned upon request by the administrator, if the operator no longer meets the certification criteria of the BC Certified Organic Program. The possession of a certificate is not, by itself, a guarantee of certification. The certification body must issue a new certificate in each year. If IOPA issues a notice of cancellation or revocation of a certificate, the certificate is by that act, invalidated. A certification body may be contacted for this information. Decertification is assigned to operations, which were certified, but no longer meet the certification body production or processing standards and the certificate is revoke.

If a renewal application is not received, status ends on the expiration date marked on the certificate and the operator must surrender their certificate to IOPA. Products that remain in inventory after a certificate expires may be marketed under that certificate upon written permission from IOPA. IOPA will require appropriate documentation and may require inspection consistent with the requirements for certificates, so long as the product remains in inventory.

IOPA's name can only be associated with a product or producer if the producer's name, current status, and membership number is also included.

Producers with IOPA certified organic status who have completed the necessary COABC paperwork can use the phrase "British Columbia certified organic" and the COABC checkmark logo. Contact the administrator for more information regarding checkmark consent and usage.

2.3. Verification and Records

The purpose of the verification process, from site inspection to Certification Committee (CC) review, is to foster the development of trust between the producer and the

consumer regarding the organic integrity of the finished product. Verification Officers (VO), accredited through the International Organic Inspectors Association (IOIA), play an important role in promoting consistency and integrity in the organic certification process.
IOPA does not require its members to maintain a specific, fixed system of forms and records. It is trusted that the producer will ensure transparency and make every effort to present all necessary documentation using a record keeping system of their choosing.

Detailed records include, but are not limited to:
Application dates for soil and plant amendments, planting and harvest dates, handling, packing, and storage procedures, sales quantities for trace back audit purposes, compost temperature logs, water and soil tests, affidavits from farm managers, contractors or others involved at the farm to ensure all are aware of the certification process and standards, affidavits for shared equipment cleaning and product compliance, From the original seed, through to the finished product purchased by a consumer, it must be demonstrated that there has been no chance of commingling or contamination of products.
When considering applications from members who rely on regulated substances and/or practices, the CC will place the onus on the applicant to demonstrate the necessity for their use, and a plan for the phasing out of such uses or practices must be submitted and approved as part of the farm's overall management plan.

Producers with certified organic status, who are in good standing and who have provided sufficient renewal information which indicates no substantial changes to their operation which could negatively impact upon their entitlement for certification, may have their certified organic status renewed for the current year prior to that year's inspection. This streamlines the certification process and allows a VO visit to be scheduled later in the season and at a time where specific elements of production (such as fall processing) can be best assessed. It is recommended for livestock producers with animals confined to paddocks for winter-feeding, that some of the inspections take place during the winter season.

In summary, both for the initial certification and for annual renewal, members should be prepared to substantiate statements made on their application form, and produce records for review by the VO as necessary to allow adequate and reasonable verification of organic management practices.
In addition to the annual inspection, IOPA can schedule additional impromptu inspections and may decide to undertake extra inspections of enterprises that are determined to be high risk.

IOPA shall retain their records for at least seven years and operators are required to retain their records for at least five years.

2.4. Duties of Certification Committee

IOPA shall establish a certification committee for evaluating enterprises' compliance with the BC Certified Organic Program. Members of the Certification Committee (CC), as arbiters of the IOPA Guidelines and the Canadian Organic Standards (COS), must at all times be totally impartial and must not have any conflicts of interest. Under no circumstance are they allowed to have a vested interest, directly or indirectly, in the outcome of any matter under deliberation by the committee. If any such interest does exist, it shall be the duty of the individual committee member to give a full disclosure of the circumstances, and then abstain from participation in any deliberations pertaining to the matter at hand.

Confidentiality shall be strictly observed. No information of a confidential or proprietary nature provided by any applicant to the CC, either verbally or in writing, shall be disclosed to anyone, except under order of a court of competent jurisdiction. This obligation shall extend indefinitely beyond the term of any committee member's term of duty.

It shall be incumbent upon the CC to follow up on any information relative to alleged violations of the IOPA guidelines, COABC Book 2 or the COS.

2.5. Appeals

Any member dissatisfied with a decision regarding her/his operation made by a Certification Committee (CC) or a decision of the guidelines review committee regarding a change to these guidelines, is entitled to an appeal.

The aggrieved member should initiate an appeal by notifying the administrator, who will contact the relevant committee and relay the request to review and reconsider their decision. An appeal must be made within sixty days of the date on which the offending communication from the CC or guidelines review committee was received by the member. The appeal must be submitted in writing and must provide the appellant's reasons. If the recommendation is reviewed and upheld by the CC, the aggrieved member may appeal to IOPA's board of directors.

The administrator will provide all relevant materials to the board of directors' appeal panel. This panel will consist of at least three people, including the IOPA Chair (or other member of the Executive if there is a conflict or if the Chair is unavailable), a member of the guidelines review committee and a member of the CC. These individuals cannot have a direct interest or close association with the producer.

The panel will make a decision on the appeal within thirty days. If the aggrieved member remains aggrieved, she/he retains the option to place the issue on the agenda at the next IOPA AGM.
Ultimately, IOPA's general membership is the final arbiter for all certification processes, procedures, appeals, guidelines, and material evaluations.

2.6. Revision of Guidelines

The guidelines will be reviewed and updated, as required, by a guidelines review committee. This committee should include at least one member of the Certification Committee and a member of the Executive.
Any member of IOPA can propose changes to the guidelines. She/he should present a proposal in writing to the guidelines review committee, together with supporting information, sixty days prior to the fall review. The guidelines review committee will consider the change and adopt it or provide reasons for rejecting it. If the member proposing the change is not satisfied with the action taken by the committee, she/he may use IOPA's appeal process outlined above.
The guidelines review committee can recommend revisions to the guidelines or prepare a new draft edition. Significant changes must be presented to the membership at least thirty days in advance of the AGM or special general meeting and all changes must be confirmed at an AGM or special general meeting.

PART 3
IOPA RULES That Augment the Canadian Organic Standards

This section contains rules regarding specific areas of organic production where IOPA enforces stricter, and/or offers more detail for rules than those provided in:

1. The British Columbia Certified Organic Operation Policies and Management Standards, Version 11, Book 2, (known as COABC Book 2) and

   The Canadian Organic Standards (known as COS)

2. The Organic production systems general principles and management standards CAN/CGSB- 32.310-2015
3. The Permitted Substances List CAN/CGSB-32.311-2015 (PSL)

The specific provisions of PART 3 reference the corresponding COS rules.
Definitions used throughout the IOPA Rules:

1. **Required** – practice or procedure that must be followed in all situations
2. **Regulated** – practice or procedure regulated by:
   A governing statute, COABC Book 2 and COS
3. **Recommended** – practice/procedure that should be followed where possible
4. **Prohibited** – practice/procedure that must not be followed in any situation

IOPA RULE	CORRESPONDING COS SECTION
3.1 Environmental Protection, Native Species	CAN/CGSB-32.310-2015: II General Principles of Organic Production
3.2 Split and Parallel Operations	COABC Book 2: 4.1.3 and 4.1.4, CAN/CGSB-32.310-2015: 4.4.3 & 5.1.3 – 5.1.7
3.3 Chemically Treated Wood	CAN/CGSB-32.310-2015: 1.4 (f, k, l), 5.2.2 CAN/CGSB-32.311-2015 Table 4.3
3.4 Organic Poultry and Fowl Production	CAN/CGSB-32.310-2015: 6
3.5 Soil Amendments and Crop Nutrition	CAN/CGSB-32.310-2015: 1.4, 5.4 & 5.5 CAN/CGSB-32.311: Table 4.2

3.1 Environmental Protection, Native Species

CAN/CGSB-32.310-2015: II: General Principles of Organic Production

As noted in PART 1, IOPA emphasizes the importance of preserving diversity and native plant species.

Recommended

1. Monitoring and control or removal of invasive exotic species which pose risk to ecosystem health. (eg. gorse (Ulex europaeus), scotch broom (Cytisus scoparius), Himalayan blackberry (Rubus discolor), holly (Ilex) and ivy (Hedera) etc.).
2. Establishing native plant hedgerows (eg. Indian Plum, Ocean spray, Nootka rose, Red Osier dogwood, etc.).
3. Restoring or maintaining natural landscape features (eg. seasonal watercourse, rocky outcrop, etc.).

Prohibited

1. Destruction or displacement of endangered species or habitat.

3.2 Split Production and Parallel Operations

COMS 4.1.3 and 4.1.4, CAN/CGSB-32.310-2015: 4.4.3 & 5.1.3 – 5.1.7

Recommended

IOPA supports the ideal of a whole farm as a certified operation, rather than individual fields. However, in practice, farms are often brought under organic management on a part-by-part basis, and certification will be available for those parts that meet the organic standards.

Clear intent to bring un-certified portions of a farm into organic management must be demonstrated and documented in a long-term farm plan if a significant portion of a commercial operation does not meet organic standards.

Regulated- *Split operations*: COMS 4.1.3

Farms with both organic and conventional management practices.

Split operations may be approved by the CC, especially during transition to whole farm certification and given the following conditions.

1. If some parts of the farm are to remain un-certified, these must be easily distinguished from organic portions (for example, crops but not livestock).
2. Documentation of careful and strict separation of organic and non-organic products at all times will be required.
3. Substances and practices used in non-organic management that could contaminate the organic products must be physically separated and documented. Buffer zones, labeling and other measures are needed to ensure organic integrity can be traced. For example, implementation of standard operating procedures which document cleaning of areas or equipment before being used for organic products; and the use of separate implements in organic and non-organic areas may be required.
4. Full records for both organic and non-organic production will be required to enable traceability and eventual transition.
5. Operations engaging in split production are likely to incur additional costs for certification due to the additional time required to complete inspections.

Prohibited

1. GE crops in non-organic portion of split operation.
2. Indefinite maintenance of non-organic production.
3. ***Parallel production***: Producing the same or indistinguishable crops on organic and non-organic portions of the farm at the same time. COMS 4.1.4

3.3 Chemically Treated Wood

CAN/CGSB-32.310: 1.4 (f, k, l), 5.2.2 and CAN/CGSB-32.311-2015 Table 4.3

Pressure treated lumber is the result of a fungicide and/or insecticide preservative being forced into the wood. The characteristic green or light brown colour of pressure treated wood often indicates the use of one of five commonly used prohibited chemical preservatives; creosote, pentachlorophenol, chromated copper arsenate (CCA), alkaline copper quaternary (ACQ) and copper azole (CA). CCA, for example, contains inorganic arsenic, chromium and copper and is a toxic pesticide. Arsenic, a known carcinogen, bio-accumulates and can be transferred by physical contact.

The level of transferability risk depends on numerous variables, such as the method and date of treatment, type and condition of wood, soil acid levels, soil type and water

saturation levels. In our bioregion, rapid leaching of chemicals from treated wood into soil is a concern. Wood treated with these chemicals is inconsistent with organic agriculture, as these chemicals may be transferred to organic products.

Recommended

1. Although new installations of pressure treated lumber is prohibited under IOPA guidelines, it is often already present on farms and therefore must be addressed. Producers wishing to certify farmland already containing chemically treated wood should obtain a history from past owners when possible, and disclose the installation dates of any wood on the property to help the CC determine the contamination risk when assessing the new application.

Required

1. Alternative products – such as cedar, charred wood, steel or concrete are readily available and must be used for any new installations.
2. A map detailing the location of chemically treated wood and sizes of buffers between the treated wood and growing areas must be submitted with new applications and updated with renewal documents when changes have been made. An inventory may also be used to document their removal over time.
3. Chemically treated wood on neighboring property must be more than eight meters (see CAN/CGSB-32.310: 5.2.2.a) from the organic production area.
4. Existing installations (i.e. more than 36 months old) of chemically treated wood must be more than two meters from the organic production area.

Prohibited

1. New installation of lumber pressure treated with prohibited substances
2. Recycling or reusing treated posts within an operation is prohibited.

Note: Under rare circumstances, the CC may reduce the size of the required buffer. IOPA directs the CC to take the following directions when determining if such a rare circumstances exists:

a. The condition of the wood itself
   (how recently was it treated? How does it present?).
b. The environmental conditions particular to the location of the installed wood (moisture, slope, accessibility).

c. The nature of the close contact. This will range from the clearly prohibited (produce in direct contact with this wood or animal pens or housing constructed with it) to rare and possibly acceptable situations (large pasture fenced with very old treated wood where animals will rarely if ever be in close contact with it).

In such rare circumstance, the CC may require soil test results that demonstrate that chemicals are not leaching into surrounding soil.

3.4 Organic Poultry and Fowl Production

CAN/CGSB-32.310: 6

In addition to the standards outlined in the National Farm Animal Care Council (http://www.nfacc.ca/) Code of Practice for Transportation of Farm Animals and the Code of Practice for Poultry – Poultry are referenced in the CAN/CGSB-32.310-2015: 6 Livestock Production.

Recommended

1. Provide free range pasture that is made up of diverse species of forage and includes living protein (worms, insects, etc.).
2. Frequent rotation of pasture to promote pasture health and reduce parasite build-up in the flock.
3. Irrigation in drought and reseeding or renovation of pastures as needed to reduce compaction and maintain a healthy, rapidly regenerating turf.
4. Provide adequate fencing, escape terrain, shelter and supervision to prevent predator losses and reduce stress when outdoors.
5. Prompt removal and hot composting of wet and soiled bedding materials.
6. Minimum of one rooster per 25 – 30 hens.
7. Pullets should have access to open air and pasture so they can develop foraging habits while young.
8. Producers should raise their own stock from the best, healthiest birds.
9. Replacement birds should be hatched and raised naturally by the mother hen, duck, etc. to the maximum extent possible.
10. When sourcing off-farm birds, attempt to increase the genetic diversity of the existing breeding flock.

Required

1. Supplementation of pasture with abundant fresh green feed including vegetables, fruit, weeds, herbs and grasses from organic farmland.
2. In our bioregion, it is expected that poultry have access to green pasture year-round, barring snow. In extreme weather or other emergency situations, producers must document periods of indoor confinement as required in the COS.
3. Poultry must have a minimum of six daylight hours daily access to free range or open-air pens in contact with natural ground.
4. Bedding material from untreated, uncontaminated sources only.
5. Outdoor area stocking densities outlined in the COS are minimums and producers must manage outdoor area densities to reflect the length of time that the flock will be on pasture and the quality of the pasture, to ensure that the pasture remains vegetated as per CAN/CGSB-32.310-2015: 6.13.1c. This may require a much larger area than the minimum if one run is provided, or may mean that several smaller runs closer to the minimum size may be rotated so that the pasture remains green for as long as it takes for the next available pasture to regenerate.

Prohibited

1. De-beaking

3.5 Soil Amendments

CAN/CGSB-32.310: 1.4, 5.4 & 5.5 and CAN/CGSB-32.311: Table 4.2

The information in this insert augments COS and corresponds to inputs listed in CAN/CGSB-32.311: Table 4.2 – Soil amendments and crop nutrition.
Note that some products allowed by the COS are regulated or prohibited by IOPA.

3.5.1 Nitrogen Sources

Nitrogen exists in gaseous, inorganic and organic forms, all of which are used by plants. Organic production systems control or prohibit the use of inorganic forms of nitrogen since the abuse of these is deleterious to the health of soil, plants and the environment.

Recommended

1. Green manures (eg. Leguminous cover crops-clover, hairy vetch, peas)
2. Nitrogen fixing crops

3. Composted materials from known acceptable sources
4. Wild fish waste compost
5. Composting according to the PSL for all conventional manure

Regulated

1. Farmed Fish Compost
   In addition to the testing outlined in COS, fish compost from farmed sources must attain a temperature of at least 55C for ten days, to neutralize the antibiotics and hormones. It is regulated because of the adverse environmental and social effects of the fish farming industry. Use of its wastes is not encouraged.
2. Conventional Plant Products and By-Products
   To clarify: non-organic seed meals are generally not permitted to be applied as a soil amendment due to the risk of GE and chemical contamination. They may only be used as composting feedstock as per the PSL. Documentation should be obtained to describe the risk of GE contamination in these products.

Prohibited

1. Human excrement is not acceptable
2. Conventional alfalfa meal or pellets. GE contamination is now assumed to be present in all conventional alfalfa in Canada. Certified organic alfalfa products are now commercially available

3.5.2 Phosphorous Sources

Because of the ability of phosphorous to form insoluble mineral complexes in the soil, it tends to accumulate over time, even with the moderate use of phosphate fertilizers. Ecological soil management stresses conservative application of phosphate fertilizers, recognizing the maintenance of balanced soil conditions (pH, organic matter and mineral content, etc.) as the most effective method of providing phosphate for plant growth.

Recommended

1. Colloidal, soft rock and hard rock phosphate, with considerations for the ecological impact of mining operations.
2. Guano – must be decomposed and dried from wild sources only, domestic is manure.
3. Organic manure
4. Wild fish bone meal

Regulated

1. Farmed Fish Products
   Fish farm wastes must be composted for use as per the COS. In addition to the testing outlined in the COS, fish farm compost must attain a temperature of at least 55C for ten days, to neutralize the antibiotics and hormones. It is regulated because of the adverse environmental and social effects of the fish farming industry. Use of its wastes are not encouraged.
2. Bone meal (prions/BSE concerns)

3.5.3 Potassium Sources

Potassium is present is sufficient amounts in many soils. Adequate levels can be maintained by implementing ecological farm management practices over the long term. However, when potassium is deficient is certain soil types, lost due to leaching or suppressed by very high levels of calcium or magnesium, or very acidic conditions, the application of potassium fertilizers can correct such temporary deficiencies. Once the soil returns to balance, the use of supplemental potassium should cease.

Recommended

1. Uncontaminated wood ash, with care to avoid excessive application
2. Rock dusts (granite, feldspar, greensand)
3. Potassium magnesium sulphate (Langbeinite, Sul-Po-Mag)
4. Natural potassium sulphate
5. Kainite
6. Recycling of potassium-rich organic matter
7. Kelp meal and other seaweed products

3.5.4 Manure Sources

Manure sources and application are regulated by CAN/CGSB-32.310: 5.5 and CAN/CGSB-32.311: 4.2. Current research from the Organic Agriculture Centre of Canada suggests that GE material can persist in non-organic manure and compost with non-organic manure as a feedstock for as long as 16 weeks. Conventional poultry manure can also contain persistent antibiotics that will not degrade in routine hot composting. For additional clarity, IOPA provides the following requirements to ensure operators making use of non-organic manure are compliant with the prohibitions stated in CAN/CGSB-32.310: 1.4.

Recommended

1. Manure from certified organic sources should be preferentially sourced
2. Manure from conventional sources can be applied according to the 90/120 day rule CAN.CGSB-32.310:5.5.2.5 as long as the grower can provide verification that there is no GE content
3. If GE content cannot be verified, conventionally sourced manure shall be brought to the required composting temperatures regardless of the 90/120 day rule. In cases of failure to reach required temperature, grower must document that adequate effort was made to bring compost to temperature.

Required

1. Documentation from conventional manure sources shall include a description of the risk of GE contamination in addition to the information required in CAN.CGSB-32.310: 5.5.1.
2. Documentation for conventional poultry manure should include details of medications used, in order to determine if final testing is indicated as per CAN/CGSB-32.311: 4.2 Composting feedstocks.