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Manufactured
 Inputs, Aids &
 Additives and
 Approved
 Services

9. MANUFACTURED INPUTS, AIDS AND ADDITIVES AND APPROVED SERVICES

- 9.1.1. The register of allowed and restricted inputs, aids and additives is managed to bring benefit to the organic and biologically oriented farmer and processor. Assessment of inputs which conform to the following criteria may be added for consideration to the Allowed Input Register. This register is listed on the website www.bfa.com.au and published quarterly. The register is a BFA publication maintained for the benefit of the organic industry and certified operators. The register confirms approval for use in compliance with this Standard. Onus is on the operator to assess where additional market requirements may apply such as the US, Japan, etc. This may include requirements to scrutinise ingredients such as non actives or synergists in a product.
- 9.1.2. At all times, inputs into organic farming systems should conform to the basic principles outlined in Section 4 of this Standard. Inputs are supplements to organic farming, and may assist in managing the conversion phase to fully biologically oriented, resilient and sustainable farming system.
- 9.1.3. Inputs which are assessed following application, and which are deemed to conform to the following criteria, may be licensed to bear an AI registration number along with the Bud Registered Product logo. The active ingredients of such inputs shall comply with (ie be listed as permitted in) the Annexes and relevant sections of this Standard, while all non active ingredients shall be assessed against the following criteria.

9.2. Agricultural Inputs – Selection Criteria

- 9.2.1. Inputs shall be allowed generally where they are sourced from naturally occurring mined substances, or from organic materials from animal, vegetable or microbiological sources. Ingredients may be subjected to mechanical, physical, microbiological or enzymatic processes and restricted chemical processes only.
- 9.2.2. Allowed inputs into the system are generally prohibited if synthetically compounded – which is defined as a process which chemically changes a material extracted from naturally occurring plant, animal or mineral resources, excepting microbiological processes. Chemically created substances shall be restricted, shall be verified to be nature identical and not chronically toxic nor exhibiting mutagenic, teratogenic, neurotoxic or carcinogenic properties.
- 9.2.3. Inputs shall be assessed upon the basis of necessity for organic production. The logic upon which such assessment will be based includes criteria such as yield, product quality, environmental safety, ecological protection, and human and animal welfare.
- 9.2.4. Animal manure products shall be effectively composted, as per Section 4.3 of the basic production Standard.
- 9.2.5. End products for sale shall not contain levels of heavy metals or other contaminants which pose an ongoing environmental risk to the farming operation, and shall not add to the overall pesticide load in

the soil. Levels are set out in table 9.2a for individual heavy metals. Exceptions to this list may only be granted following submission and acceptance by the Certification Office (CO). Products shall be assessed in relation to standard rates and frequency of application.

9.2a Table: Guidelines for maximum levels of heavy metals allowed in end products for sale as manufactured inputs. Note all other statutory regulations and requirements (eg EPA) may override (ie be more restrictive than) these guidelines.

In manures	(PPM – mg/kg)
Arsenic (As)	20
Cadmium (Cd)	5
Chromium (Cr)	250
Copper (Cu)	375
Lead (Pb)	150
Mercury (Hg)	4
Nickel (Ni)	125
Zinc (Zn)	700

- 9.2.6. Pesticide residues in manures and other ingredients shall be managed and eliminated from the production system so as not to pose on-farm contamination risk.
- 9.2.7. Where potential risk of contamination from ingredients or inputs is noted, random residue tests shall be carried out by the operator to verify that levels of pesticides and heavy metals, among other contaminants, are absent or below acceptable limits within the production system.
- 9.2.8. In cases where input ingredients for the end product are sourced from potentially contaminating areas or processes, a Quality Management system compatible with HACCP principles shall be documented, implemented and recorded by the input manufacturer to ensure the authenticity of manufactured end product.
- 9.2.9. No GE or GMOs shall be allowed in the production process. Inputs must be traced back one step in the biological chain to the direct source organism from which they were produced to verify that they are not derived from GMOs.
- 9.2.10. No ionising radiation is allowed for use on the end product.
- 9.2.11. No human wastes such as urban or multi source water or sewerage shall be used within organic inputs.
- 9.2.12. Management and assessment of contamination shall take into consideration not only end testing of end product but also manage processes and input products to ensure that other potential contaminants or carcinogens, as well as potentially disruptive agents such as hormone mimics, are eliminated or removed from the production process.
- 9.2.13. Extraction processes, production and processing shall take place with consideration to sustainable management practices, protection of the environment, socio-economic aspects and work place health and safety conditions.
- 9.2.14. Inputs shall not be harmful to human health where utilised in the fashion specified on instructions or labelling for the product.



- 9.2.15. Inputs shall not have a negative effect on the natural behaviour or physical functioning of animals kept on the organic farming operation.
- 9.2.16. Assessment of production processes and end products shall also take into consideration consumer perception of such products, and may not be allowed where there is general perception of such products not conforming to the general opinion of what is natural or organic.
- 9.2.17. Products that are assessed as Restricted (see definitions) shall clearly specify in labelling and sales information, the areas, sectors and specific conditions under which they may be utilised. Some restricted products may be expressly prohibited for use in certain sectors or under particular conditions and this must be clearly communicated to the end user via marketing and related information materials.

9.3. Aids and Additives – Selection Criteria

- 9.3.1. Aids and additives not listed in this Standard, or those seeking registration under the register for Allowed Inputs to organic production systems or Approved Product status, shall comply with the following guidelines:
- 9.3.2. In all instances the first preference is for sourcing of certified organic products in whole form or used in processing in a natural way – eg flour as a thickening agent.
- 9.3.3. Other food products by nature not certifiable as organic but which are produced only by natural (eg physical or mechanical) processes – eg salt.
- 9.3.4. Second preference is for isolated food substances produced physically or by enzymes – eg starches, tartrates, pectin – or purified products of non agricultural origin such as micro organism starter cultures, acerola fruit extract, enzymes.
- 9.3.5. Other additives and aids shall not include the following:
- “Nature identical” substances;
 - Synthetic substances judged as unnatural – such as acetylated cross linked starches;
 - Synthetic colouring and synthetic preservatives;
 - GE or GMOs;
 - Ionising radiation as a post harvest practice on ingredients.
- 9.3.6. Processing aids must be traced back one step in the biological chain to the direct source organism from which they were produced to verify that they are not derived from GMOs.
- 9.3.7. Aids and ingredients shall be assessed upon the basis of necessity for organic production and shall only be used in the absence of other acceptable technologies to preserve or process the product.
- 9.3.8. Necessity may also include where the hygiene of the product cannot be guaranteed by any other natural means, including management practices.
- 9.3.9. Other conditions requiring consideration prior to acceptance include:
- That additives and aids do not compromise the authenticity or overall quality of the certified product;
 - There are no natural alternatives which may replace the use of additives and aids, and such aids and additives otherwise assist in minimising physical or mechanical damage which might result from the use of other technologies;
 - Assessment of production processes and end products shall also take into consideration consumer perception of such products, and may not be allowed where there is general perception of such products not conforming with the general opinion of what is natural or organic;

- Note also that assessment of products such as aids and ingredients shall require consideration of all other regulatory requirements including international organic regulations. Such regulations override all the above in regard to assessment.

Approved Products

9.4. Cleansers, sanitisers and disinfectants

- 9.4.1. Cleansers, sanitisers and disinfectants not listed in this Standard, or those seeking registration under the register for Allowed Inputs to organic production systems or Approved Product status, shall comply with the following guidelines:
- 9.4.2. Sanitisers may be used where followed by effective rinse with potable water or volatisation procedures prior to certified products coming in contact with treated surfaces.
- 9.4.3. Preference is for products that are biodegradable, low in toxicity and generally non contaminating to the environment, both in their production as well as application.
- 9.4.4. Preferred active ingredient products that may carry BFA Approved Product status include, but are not limited to:
- Acetic and related acids;
 - Alcohols;
 - Detergents (natural and biodegradable);
 - Hydrogen peroxide;
 - Peracetic acids;
 - Natural Soaps.
- 9.4.5. Other non active or synergistic agents associated with or mixed with the above products shall require assessment prior assessment with Section 9.3 of this Standard prior to being given Approved Product status for use as a cleaner/sanitiser.
- 9.4.6. Restricted products include:
- Ammonium and bleach products;
 - Hypochlorite products;
 - Other oxidising agents that can be fully rinsed and disposed of without direct harm to the environment.
- 9.4.7. In regard to the above restricted list that there is a strong preference for natural alternatives that do not pose a negative impact on the environment, in terms of production as well as end use.

9.5. Edible Minerals

Not being of agricultural origin, salt as such may not be “certified organic” however this guideline outlines the basis upon which such salt products may be registered as an Approved Product (AP) under the Bud registration program for approved products. Such products are recommended for use in certified processed organic products.

- 9.5.1. Salts and other edible minerals may be registered as Approved Products.
- 9.5.2. No prohibited inputs shall be used at any point along the production chain.
- 9.5.3. Effluent, nuclear waste and other potential environmental contamination sources may affect approved product status and shall be decided by the CO on a case by case basis.

- 9.5.4. Heavy metal and other contaminants shall not be present in the end product at levels above 10% of the Maximum Residue Limit (MRL) for such foods.
- 9.5.5. Aluminium silicate, magnesium silicate and other flowing, tableting and desiccating agents are not allowed in end product for sale.

9.6. Spring and Pure Water

Not being of agricultural origin, water as such cannot be “certified organic” however this guideline outlines the basis upon which such water may be registered as an Approved Product (AP) under the Bud registration program for approved products. Such products are recommended for use in certified processed organic products as superior to simply “potable” water.

- 9.6.1. Spring water may be registered as an Approved Product under this Standard, as may Pure water.
- 9.6.2. The wording ‘organic’ and ‘certified organic’ cannot be used on Spring and Pure water that is registered as a Bud approved product.
- 9.6.3. Spring water means ground water that flows to the surface on its own accord from subterranean water-bearing strata that, in its natural state, contains soluble matter. Pure water is defined where the source of the water arises from non urban and non industrial sources (ie from either natural catchments or rain sources unpolluted by industrial, urban or similar activity).
- 9.6.4. All Spring and Pure water operations shall ensure that production activities add positively to the environment of the region within which the production system is based, whilst minimising all forms of environmental pollution. Sustainable management of water resources must be included as a critical component of the Organic Management Plan to maintain registration.
- 9.6.5. Spring and pure water may be subjected to one or more of the following treatments:
- Separation from unstable constituents by decantation and/or filtration;
 - Aeration;
 - Deaeration;
 - Carbonation;
 - Ultraviolet sterilisation;
 - Ozone treatment;
 - Pasteurisation;
 - Atmospheric pressure processes.
- 9.6.6. Except in instances determined by the CO to represent natural variations, and with the requirement for conformance with all other relevant regulations as they pertain to water, mineral spring or pure water shall not contain more than the following:
- 0.05 mg/L of Arsenic (As);
 - 1.0 mg/L of Barium (Ba);
 - 30 mg/L of Borate (expressed as H₃BO₃);
 - 0.005 mg/L of Cadmium (Cd);
 - 1.0 mg/L of free available Chlorine (Cl);
 - 0.05 mg/L of Chromium (Cr);
 - 1.0 mg/L of Copper (Cu);
 - 0.1 mg/L of Cyanide (expressed as CN⁻);
 - 1.5 mg/L of Fluoride (expressed as F⁻);
 - 0.05 mg/L of Lead (Pb);
 - 2 mg/L of Manganese (Mn);

- 0.001 mg/L of Mercury (Hg);
- 45 mg/L of Nitrate (expressed as NO₃⁻);
- 0.1 mg/L of Nitrite (expressed as NO₂⁻);
- 0.01 mg/L of Selenium (Se);
- 0.05 mg/L of Sulphide (expressed as H₂S);
- 5.0 mg/L of Zinc (Zn).

- 9.6.7. Spring or pure water shall not have a chemical oxygen demand (expressed as O₂), when assessed by the dichromate digestion method, exceeding 3 mg/L.
- 9.6.8. The radium content of mineral water shall not exceed 1.0 Bq/L. This shall be measured and verified by the operator where risk of this level being exceeded is present.
- 9.6.9. Spring or pure water shall comply with FSANZ requirements so far as those requirements relate to water.
- 9.6.10. Spring or pure water shall be free (nil counts) from coliforms in 250ml and be free from *Pseudomonas aeruginosa* in 250 ml.

9.7. Approved Services

- 9.7.1. In some instances it is possible to register a service which is deemed to be in accord with this Standard. Such services may include the following:
- 9.7.2. Services/processes which are reliant upon physical, biological or mechanical means (eg vacuum distillation of water, microbial digestion of products) where no synthetic chemical or other prohibited procedures or processes are utilized may be registered as an Approved Service or Process.
- 9.7.3. Such assessment will take into consideration the application of the service/process, the environmental benefit of the process and the benefit to the organic industry in terms of utilization of this service as an approved service.

Education, Training and Advisory Services

- 9.7.4. Where an operator is providing educational or technical services to the organic industry or interested parties, approval may be sought from the CO for use of the Bud logo in relation to such activities. Such approval shall be in writing from the CO in accord with usual criteria for approval for use of such labels or marketing materials.
- 9.7.5. Such providers or trainers will be required to have been verified to have achieved a level of competency in the technical domain being advertised or promoted by the Bud logo, which shall usually include approved and nationally registered training courses such as auditor and/or advisory training courses, relevant technical degrees and qualifications, along with sufficient industry experience (a minimum of 3 years) in the area of expertise.

Scientific and technical services and research

- 9.7.6. Scientific and research institutes may be approved for use of the Bud logo where such research or services have been deemed by the CO to be aligned with, and compliant with, the production or technical requirements of this Standard for the research in question.
- 9.7.7. Such approval for use of the Bud logo shall be limited in scope to the specific research domain being managed by the operation in question. In relation to primary production system research units, where there is no sale of end product as organic the requirement for buffer zones with neighbouring activities may be waived where it is otherwise impractical to maintain a certified area for research purposes.